

Date: 6/9/26

*Virtual Meeting*

**RISK-BASED CAPITAL INVESTMENT RISK AND EVALUATION (E) WORKING GROUP**

Tuesday, June 23, 2026

12:00 – 2:00 p.m. ET / 11:00 a.m. – 1:00 p.m. CT / 10:00 a.m. – 12:00 p.m. MT / 9:00 – 11:00 a.m. PT

**ROLL CALL**

Philip Barlow, Chair	District of Columbia	Tadd Wegner	Nebraska
Thomas Reedy, Vice Chair	California	Jennifer Li	New Hampshire
Wanchin Chou	Connecticut	Bob Kasinow/William B. Carmello	New York
Carolyn Morgan	Florida	Dale Bruggeman/Tom Botsko	Ohio
Matt Cheung	Illinois	Rachel Hemphill	Texas
Roy Eft	Indiana	Doug Stolte	Virginia
Carrie Mears/Kevin Clark	Iowa	Steve Drutz/Katy Bardsley	Washington
Fred Andersen	Minnesota	Amy Malm	Wisconsin
William Leung/Danielle Smith	Missouri		

NAIC Committee Support: Julie Gann/Maggie Chang

**AGENDA**

1. Consider Adoption of its May 11, May 6, April 10, and Spring National Meeting Minutes—*Philip Barlow (DC)*
  - Attachment 1A
  - Attachment 1B
  - Attachment 1C
  - Attachment 1D
  
2. Hear an Update from the American Academy of Actuaries (Academy) on the Proposed Collateralized Loan Obligation (CLO) C-1 Factors—*Philip Barlow (DC)*
  - Attachment 2
  
3. Receive Comments on Proposal 2026-12-IRE (CLO RBC Factors) —*Philip Barlow (DC)*
  - Attachment 3
  - A. Alternative Credit Council (ACC) and Loan Syndications and Trading Association (LSTA) Joint Letter—*Joe Engelhard*
    - Attachment 4A
  - B. American Council of Life Insurers (ACLI)—*Marc Altschull*
    - Attachment 4B
  - C. American Investment Council (AIC)—*Daniel McCarty*
    - Attachment 4C
  - D. Athene—*Mike Consedine and Kim Welsh*
    - Attachment 4D
  - E. Hildene Capital Management—*Dushyant Mehra*
    - Attachment 4E
  - F. MetLife—*Francisco Paez*
    - Attachment 4F
  
4. [Placeholder] —*Philip Barlow (DC)*
  - Attachment 5

5. Discuss Any Other Matters Brought Before the Working Group  
—*Philip Barlow (DC)*
6. Adjournment

## Draft Pending Adoption

Draft: 5/22/26

Risk-Based Capital Investment Risk and Evaluation (E) Working Group  
Virtual Meeting  
May 11, 2026

The Risk-Based Capital Investment Risk and Evaluation (E) Working Group of the Capital Adequacy (E) Task Force met May 11, 2026. The following Working Group members participated: Philip Barlow, Chair (DC); Thomas Reedy, Vice Chair (CA); Wanchin Chou (CT); Carolyn Morgan (FL); Carrie Mears and Kevin Clark (IA); Matt Cheung (IL); William Leung and Danielle Smith (MO); Tadd Wegner (NE); Bob Kasinow and William B. Carmello (NY); Dale Bruggeman and Tom Botsko (OH); Rachel Hemphill (TX); Doug Stolte and Dan Bumpus (VA); Katy Bardsley (WA); and Michael Erdman (WI). Also participating was: Jake Garn (UT).

### 1. Heard an Update from the Academy on the CLO RBC Project, Focusing on Portfolio Adjustment Factors

Stephen Smith (American Academy of Actuaries—Academy) presented a collateralized loan obligation (CLO) C-1 factors modeling update focusing on portfolio adjustment factors (PAFs) (Attachment XX). Smith said PAFs are a concept used when modeling C-1 bond factors. In that model, a representative portfolio was used to derive C-1 base factors for corporate bonds. PAFs were designed to measure the relative concentration/diversification of an insurer's portfolio compared to the representative portfolio. A size factor of less than one is possible when the insurer's portfolio is more diversified than the representative portfolio and vice versa. In contrast, the Academy used the entire universe of U.S. broadly syndicated loan (BSL) CLOs when modeling base factors for CLOs. As such, PAFs for CLOs cannot possibly be less than one, as it is not feasible to have any one insurer's portfolio that is more diversified than the entire universe of CLOs. Smith said when modeling PAFs for CLOs, a look-through basis is utilized, i.e., the insurer's exposure to unique underlying loan issuers from the loans held within the CLOs is measured. Smith said there could be a couple of hundred unique loan issuers within one CLO, but with loans overlapping across various CLOs, the Academy noted that by the time it reaches 10 or 11 CLOs, it approximates a fully diversified CLO portfolio.

With this as a backdrop, Smith presented the two PAF methodology options, summarized in the "Summary of Findings – Portfolio Adjustment Factors" page. To maintain consistency with C-1 bond factor modeling, the Academy applies the PAFs from the corporate bond model once the number of unique underlying loan issuers is determined. Smith then walked through the "Loan Issuer Diversification by CLO Portfolio Size" page, which showed how many unique loan issuers life insurers were exposed to as a function of the number of CLOs owned. Smith said the Academy translated the histogram on the "Loan Issuer Diversification by CLO Portfolio Size" page and derived the PAF model illustrated on the "Relative CLO Portfolio Adjustment Factors" page. He said in this model, PAFs are a function of the number of unique CLOs owned. The Academy observed that the PAF quickly converges to 1.0 as the number of unique CLOs increases, supporting the recommendation to keep PAFs at 1.0.

Smith said there may be concerns about a simplified PAF option, e.g., the potential for undercapitalization. As such, he presented the "Life Insurance Industry CLO Holdings" page. Smith said that through statutory filings, the Academy identified how many life insurers own small numbers of CLOs. The box-and-whisker chart shows that only 18 companies own one CLO and account for a small percentage of the total bonds they own. The bar chart on the right-hand side of the page showed that, for companies that own five or fewer CLOs, those CLOs are primarily NAIC 1-rated. Since PAFs are a "multiplier" applied to risk-based capital (RBC) requirements, the higher the quality of CLOs owned, the less material the PAF multiplier effect would become.

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Barlow clarified that, should the Working Group advocate for Option 1 and set PAFs at 1.0, it would still represent a change to the current RBC framework. This is because CLOs are currently aggregated with bonds when assessing PAFs. Barlow speculated that setting PAFs at 1.0 for CLOs will result in an increase in authorized control level RBC for a meaningful number of companies. Smith concurred. He added that without making changes to the CLO PAF methodology, the RBC framework will double-count the diversification benefit for CLOs.

Barlow also reminded the Working Group that it will look into RBC methodologies for other asset-backed securities (ABS). Whatever the Working Group decides for the CLO PAF methodology will likely set a precedent for future work.

Cheung asked that, since the Academy's proposed CLO PAF is a function of the number of unique CLO issuers, he was curious whether the instruction provides guidance on defining "unique CLO issuer." Smith said filers should be able to rely on the first six digits of the CLO's Committee on Uniform Security Identification Procedures (CUSIP) to identify a unique CLO issuer. Maggie Chang (NAIC Committee Support) added that while there is no specific guidance in the factor proposal, the "use of the first six digits in CUSIP as a starting point" has been the standing instruction for the bond PAF model.

Barlow conferred with NAIC committee support and announced that proposal 2026-12-IRE exposed at the May 6 meeting allows the implementation of either of the PAF options recommended by the Academy. Smith clarified that some additional work is needed to align Option 2 with the tier structure used in the current bond PAF model, but it is attainable. Since the PAF presentation was part of the exposed proposal 2026-12-IRE, Barlow announced that no additional exposure is deemed necessary.

### 2. Discussed the Referral to the Credit Rating Provider (E) Working Group

Barlow thanked Clark and Reedy for their help in drafting the referral (Attachment XX). Barlow acknowledged the reliance on NAIC designations within the RBC framework and believed that examining divergence in rating agencies' methodology and the resulting implications to NAIC designations is outside the purview of the Working Group. As such, the referral is drafted to address this.

Garn said PricewaterhouseCoopers (PwC) was engaged as a consultant, and its white paper, as it currently stands, was expected to delve into rating methodologies and automatic mapping within the filing exempt (FE) process. That said, there was no specific mechanism in PwC's work plan to address the tranche thickness issue. He sought to clarify expectations on the Credit Rating Provider (E) Working Group. Mears clarified that the Iowa Insurance Division (IID) initially suggested the referral, knowing that the Credit Rating Provider (E) Working Group is tasked with developing a credit rating provider (CRP) due diligence framework. Mears said the expectation is that the Credit Rating Provider (E) Working Group will evaluate the CRP rating methodologies on CLOs against the due diligence process developed. Mears said the IID comment letter listed possible outcomes from the analysis, including a change in FE mapping methodology when CLOs are rated by certain CRPs.

Hemphill made a motion, seconded by Clark, to direct the referral to the Credit Rating Provider (E) Working Group.

### 3. Discussed the Application of "Regulatory Judgment" as Described in the Principles for RBC Requirements

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Barlow said a lot of time was spent drafting the principles for RBC (Attachment XX), which provided for the use of regulatory judgment in maintaining and updating RBC requirements. Barlow believed a number of discussions that happened at the May 6 meeting qualified for application of regulatory judgment: i) flooring CLO factors at bond C-1 factors; ii) smoothing A3 factors; and iii) application of tranche thickness surcharge toward middle-market (MM) CLOs. He said the use of regulatory judgment is not out of the ordinary and was done in the past during his tenure as the Chair of the Working Group. In light of the formalization of RBC principles, Barlow sought the Working Group's feedback on whether the process of applying regulatory judgment should be formalized. He provided some suggestions for the process, such as asking Working Group members to submit a statement, either as a comment letter or a remark, on the area(s) where regulatory judgment is needed and the rationale for that judgment. Cheung said the suggested formality is reasonable and helpful to maintain a record to inform future work. Hemphill used the A3 factor discussion to illustrate her uncertainty about how to draw a line between applying regulatory judgment and participation in general discussions. Barlow said the defining line was whether the expert opinion, in this case, the A3 factor recommended by the Academy, was updated after the discussion. If not, regulatory judgment is needed to substantiate the deviation from expert opinion. Hemphill asked if the Academy is amenable to updating the recommended A3 factor. Smith said he will circle back after consulting with the Academy.

Barlow noted that he intends to conduct straw polls when the Working Group meets in June to discuss next steps for CLO factors, due to varying facets that would require the Working Group's input.

#### 4. Heard an Update from the Academy on the CLO RBC Project, Focusing on RBC Arbitrage

Smith said that when the Academy was formulating guiding principles for the structured securities RBC project back in 2020, regulators were probing the difference in charges between owning the underlying loans within the CLOs directly and owning a vertical slice of the CLOs. It was believed that there was a difference between the two and, therefore, incentivized investment in CLOs ("RBC arbitrage"). Smith said RBC arbitrage was raised again in some comment letters received on May 6, and therefore, the Academy felt compelled to respond to this question. Smith said that if the proposed CLO C-1 factors were to be used, there would be nearly zero RBC arbitrage (about an immaterial 0.18 to 0.35 percentage point). Smith presented the "Collateral Bond C-1 Factors vs. Exposed CLO C-1 Factors" page to illustrate that the difference in charges between owning the underlying loans within the CLOs directly (labeled as "Collateral Current Bond C-1 Factors") versus owning a vertical slice of the CLOs (labeled as "Exposed CLO C-1 Factors"). He said the difference can be attributable to i) the impact of book value (BV) accounting of the residual tranches (accounted for 3.34 percentage points); ii) the impact of diversification via PAFs (accounted for 1.00 percentage points), and iii) other modeling impacts (accounted for 0.35 percentage points).

Smith used the "Residual Tranches Book Value vs. Face Amount" as well as the "Example CLO Deal at Median Collateral Loss" pages to further illustrate the impact of residuals' BV accounting. Smith said for simplicity's sake, the Academy assumed that only the practical expedient accounting method is used and has been used since inception. With that assumption in mind, the Academy observed that, on average, the BV of residual is only about one-third of the face value at any given time. Smith then used a hypothetical CLO structure with 8% of the structure in residuals. Assuming a bond C-1 factor of 8%, the insurer would need to hold \$8 as capital for every \$100 invested in the underlying loans. If instead a vertical slice of the CLO owning the same underlying loans were purchased, the insurer would only need to hold \$2 in capital for a \$100 CLO slice investment, since, after residual tranche accounting, the CLO slice is carried at \$94. Smith said the difference between \$8 and \$2 in capital is not RBC arbitrage, but that the \$6 has already been taken out of statutory surplus through the accounting of residuals.

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Smith said an actual CLO is depicted in the “Example CLO Deal at Median Collateral Loss” page for documentation purposes. The Academy chose to use the 96th percentile scenario (i.e., the median) to illustrate, mechanically, how losses in the underlying loan portfolio are modeled and therefore reflected in capital charges for CLOs.

Barlow said the Academy’s presentation was part of the May 6 exposure. Feedback is welcome.

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

## Draft Pending Adoption

Draft: 5/19/26

Risk-Based Capital Investment Risk and Evaluation (E) Working Group  
Virtual Meeting  
May 6, 2026

The Risk-Based Capital Investment Risk and Evaluation (E) Working Group of the Capital Adequacy (E) Task Force met May 6, 2026. The following Working Group members participated: Philip Barlow, Chair (DC); Thomas Reedy, Vice Chair (CA); Wanchin Chou (CT); Carolyn Morgan (FL); Carrie Mears and Kevin Clark (IA); Matt Cheung (IL); Fred Andersen (MN); William Leung and Danielle Smith (MO); Tadd Wegner (NE); Jennifer Li (NH); William B. Carmello (NY); Dale Bruggeman and Tom Botsko (OH); Rachel Hemphill (TX); Doug Stolte and Dan Bumpus (VA); Steve Drutz (WA); and Amy Malm (WI).

### 1. Heard an Update from the Academy on the CLO RBC Project, Focusing on Residual Tranches

Stephen Smith (American Academy of Actuaries—Academy) presented a collateralized loan obligation (CLO) C-1 factors modeling update focusing on residual tranches of CLOs (Attachment XX). Smith reported that since the Academy presented on CLO residual tranches on April 10, two updates have been made, as summarized on the “Summary of Findings – Residual Tranches” page. Smith said one substantive change resulting from the updates was that the modeled C-1 factor for residuals accounted for under the practical expedient (PE) is now lower than the factor for residuals accounted for under the allowable earned yield (AEY). Despite the changes, the Academy’s conclusions remained unchanged: the current 35.55% (post-tax)/45% (pre-tax) C-1 factors for residuals appear reasonable. Smith then presented the “Sample Means of C-1 Factors” page, highlighting the incremental work the Academy has done, as requested by the Working Group, to model residuals accounted for under the AEY method and that the liability-backing assumption is used. It was noted that the C-1 factors modeled were very close to those modeled under the surplus-backing assumption, likely attributable to the limited amount of statutory income generated by the residuals. Likewise, conservatism in earned yield also explained the similar results modeled for residuals under either PE or AEY accounting elections.

Barlow said this updated presentation suggests that the current 45% charge could have been even more conservative but within the range of modeled outcomes after all. He is inclined to follow the Academy’s conclusion and suggest retaining 45% factor but open to comments. Hearing no objection, Barlow exposed the Academy’s presentation for a 61-day comment period ending July 6.

### 2. Heard Comments on the Academy’s March 2 Presentation Regarding an Update on CLO C-1 Factors Modeling

Joe Engelhard (Alternative Credit Council—ACC) addressed the joint comment letter from the ACC and the Loan Syndications and Trading Association (LSTA) (Attachment XX). The ACC and LSTA expressed support for the Academy’s model over the NAIC Structured Securities Group (SSG) model. However, the Academy model should only be applied to broadly syndicated loan (BSL) CLO at year-end 2026, allowing more time for separate calibration for middle market (MM) CLOs.

Leah Locke (American Consumer Institute—ACI) addressed the ACI’s comment letter (Attachment XX). Locke said the ACI primarily wants to caution the Working Group that not all CLOs are the same and should avoid adopting a one-size-fits-all regulatory approach.

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Marc Altschull (American Council of Life Insurers – ACLI) addressed the ACLI’s comment letter (Attachment XX). The ACLI expressed support for limiting 2026 implementation to enhanced disclosure only to allow time to assess stability and reduce the risk of unintended “cliff” effect. Barlow sought clarification on the “cliff” effect, and Altschull said cliffs are observed in the Academy’s recommended factors, e.g., from A2 to A3 and from Baa3 to Ba1.

Daren Moreira (American Investment Council—AIC) addressed the AIC’s comment letter (Attachment XX), AIC’s recommendation was similar to the ACC and LSTA’s.

Mike Consedine (Athene) addressed Athene’s comment letter (Attachment XX). Athene supports the adoption of the Academy model for year-end 2026, with calibration refinement targeted for 2027. Consedine said Athene is indifferent between Option 1 (designation-only) and Option 2 (designation + tranche thickness) for BSL CLOs, while Option 1 is right for MM CLOs. Consedine commended the work by the Working Group as “systemically adapting a risk-based capital framework to the structural shifts reshaping how insurers invest” and believed this work demonstrated prudential leadership globally. Hemphill asked if the regulators would go with Athene’s recommendation to adopt Option 2 only for BSL CLOs, whether there is any concern/need to tailor the structure for MM CLOs. Barlow reminded that the exposed CLO risk-based capital (RBC) structural proposal is scalable, allowing Option 2 to be applied only to BSL CLOs. Dan Castaline (Apollo/Athene) explained that MM CLOs already have fewer thin tranches and that this reality substantiated Athene’s position.

R.J. Lehmann (International Center for Law & Economics—ICLE) addressed ICLE’s comment letter (Attachment XX). Lehmann said the ICLE supports Option 1 and said there was no formal empirical analysis demonstrating why the simpler rating-only framework (Option 1) is inadequate. Sharing the ACLI’s concerns, the ICLE also has concerns about the cliff effect. The ICLE supports introducing policy change, e.g., layering in tranche thickness as comparable attributes in a transparent, measured, and regulatory modest manner. In relation to the empirical study, Hemphill thought that tranche thickness is a comparable attribute that has predictive power according to the Academy’s work, to which Smith confirmed.

Clark addressed the Iowa Insurance Division (IID) comment letter (Attachment XX). Clark said the IID supports applying Option 1 factors to the Non-agency – CLOs/CBOs/CDOs subtotal (affiliated and unaffiliated) for year-end 2026, i.e., to both BSL and MM CLOs, predicated on the IID’s view that ratings provide a comparable assessment of credit risk between the two nearly identical asset classes. Clark cautioned that any assertion contrary to that view calls into question the fundamental premise of regulatory reliance on ratings in assigning capital requirements. Regarding the use of tranche thickness as a secondary comparable attribute (Option 2), Clark said the more effective way to address the issue is to refer it to the newly created Credit Rating Provider (E) Working Group.

Cheung sought clarification as to whether comparability and consistency exist among rating agency methodologies upon rating different asset classes, for example, whether an AA-rated corporate bond is comparable to an AA-rated CLO. Clark responded that the nuances in capital structure and the tail-loss scenarios among structured assets set them apart and, therefore, warrant a different capital treatment. Mears agreed. She supplemented that while rating agencies strive to achieve calibration consistency across asset classes, the regulatory use of ratings to inform capital requirements demanded differentiation between corporates and structured assets, as the different structures of these asset classes presented differently in terms of potential losses to surplus under stressed scenarios. Cheung said he probed rating consistency because he noted that the

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Academy C-1 modeled factors for certain A-rated tranches are lower than those for corporates of equivalent rating. He expressed interest in understanding the rating agencies' view of this disparity.

Richard Cantor (Moody's) said while Moody's aspires to strive for equivalence in rating methodologies, he agreed with Mear's characterization about the use of CRP ratings for NAIC purposes. Cantor said the following probably rationalized the disparity noted by Cheung: (i) structured assets have diversification in collateral pools in such a way that idiosyncratic risks at the loan level are diversified away, especially true for higher-rated CLO tranches, and (ii) the use of CTE 90 for structured assets.

Francisco Paez (MetLife) addressed MetLife's comment letter (Attachment XX). Paez said there are still critical sensitivity assumptions that have not been incorporated into the Academy's model, due to timing constraints. These sensitivity assumptions could have a very material impact on modeled C-1 factors for subordinated tranches of CLOs. MetLife is concerned that premature adoption may i) derail achievement of the regulatory goal to address RBC arbitrage, and ii) become a de facto standard for an extended period of time, as the Working Group may move on to address its other competing priorities. In the interim, MetLife supports the adoption of disclosure requirements that show sensitivity analysis. Paez said MetLife supports the modeling approach finalized by the SSG in 2025 and thought it is more effective in achieving the NAIC's policy goals. Barlow sought clarification on the open items, as he recalled the Academy concluding that the impact of those items was likely to offset each other. Paez said MetLife is not convinced of the offsetting effect and believes that the impact of correlation factors on systemic risk or the recovery assumptions could have an outsized effect.

Clark said he struggled to understand why regulators should delay implementation, especially when the modeled C-1 factors are more appropriate for CLOs. Paez reiterated MetLife's concerns. He also pointed out that with the recommended reduction in RBC charges for certain A-rated CLO tranches, many companies are seeing capital relief, which is unlikely to be a meaningful advancement toward policy goals.

Hemphill concurred with Clark. She reminded the Working Group that the work on modeling other asset-backed securities (ABS) is thematically related and can therefore inform the Working Group about future refinements to the CLO methodology. Cheung asked Paez about the idea of flooring the factors to the current corporate bond factors. He asked whether that addressed MetLife's concern about the reduction of certain A-rated CLOs' charges.

Paez responded that, based on current life insurers' holdings, the anticipated impact remains marginal and does not achieve the capital and risk alignment that MetLife would like to see. Cantor concurred and stated his belief that should the Academy revise certain assumptions, the modeled charges for A-rated tranches should become higher, even higher than corresponding bond charges. Barlow reminded Paez that the project's goal is to accurately assess risk using the relevant RBC factors, rather than striving for "meaningful impact." Smith referred Paez and Cantor to the Academy's Dec. 15, 2025, presentation, which outlined the rationale for aligning with C-1 bond modeling assumptions.

Cantor addressed Moody's comment letter (Attachment XX). He said Moody's supported applying Option 1 when a tranches rating is based on an expected loss approach, and Option 2 when the rating is based on a probability of default (PD) approach for year-end 2026. Cantor believed the expected loss approach maps much more closely to the stated definitions of NAIC designations. In addition, Moody's recommended considering the impact of tranche thickness across the full rating scale (Aaa and below), rather than limiting it to Baa3 and below. Barlow solicited help from Clark and Mears to formalize a referral letter to the Credit Rating Providers (E) Working Group

## Draft Pending Adoption

to further investigate divergence in rating methodologies among rating agencies. This would inform the Working Group of the potential considerations for setting capital requirements.

David Knutson (S&P Global) clarified S&P's rating methodology and advocated the referral to the Credit Rating Providers (E) Working Group. Hemphill sought clarification on whether the Working Group is expected to delay deliberation of thin tranche CLOs (Option 2) until the Credit Rating Providers (E) Working Group provided findings and/or addressed the issue. Barlow said a delay is not necessary. Clark supplemented that Iowa supported a referral regardless of whether Option 1 or Option 2 is adopted.

Eric Ventimiglia (Pinpoint Policy Institute—PPI) addressed PPI's comment letter (Attachment XX). Ventimiglia said PPI does not support applying modeled charges to MM CLOs because the Academy's study and modeling are solely grounded in BSL CLOs. Coupled with the lack of precedence for defaults and the fact that several empirical studies showed MM CLOs outperformed BSL CLOs under stress, the proposed charges should not be applied to MM CLOs. PPI also expressed concern about the process of deliberating the proposal.

Ross Marchand (Taxpayers Protection Alliance—TPA) addressed TPA's comment letter (Attachment XX). Marchand said TPA is concerned that the model-based factors for CLOs reflect a predisposition to assess CLO-related risk through arbitrary biases against certain investments. The TPA also expresses concern about the process of deliberating on the proposal.

Bumpus addressed the comment letter submitted by the Virginia Bureau of Insurance (VBI) (Attachment XX). Bumpus said the VBI's position is largely aligned with the IID's, namely, to support the application of factors to all CLOs effective 2026. Unlike IID, the VBI favors Option 2 because adding tranche thickness as an additional comparable attribute provides a better fit for C-1 factors and further aligns with the principle of equal capital for equal risk.

Bumpus reminded the Working Group that the Academy is modeling only BSL CLOs due to data availability. Through the presentation of findings and the comment process, VBI believes the Working Group can confirm its initial expectation that BSL CLOs modeling data produced a reasonable proxy for other types of CLOs. Bumpus said the RBC principles explicitly permit regulators to use expert judgment and proxies.

Kevin Howard (Western & Southern Financial Group—WSFG) addressed WSFG's comment letter (Attachment XX). Howard said WSFG supports adopting the Academy's C-1 modeled factors for 2026. In addition, the WSFG does not support an artificial 45% cap on RBC charges. Clark said he was not aware of the 45% cap and asked for more context. Howard responded that the idea has been socialized among the industry, but agreed with Barlow that it was not a topic discussed at the Working Group meetings.

### 3. Heard Comments on Proposal 2025-22-IRE MOD (CLO RBC Structure)

Barlow said the modified proposal 2025-22-IRE was exposed on March 23 to incorporate tranche thickness as a secondary comparable attribute (Attachment XX). Three comment letters were received.

Andrew Berlin (LSTA) addressed the ACC and LSTA joint comment letter (Attachment XX). Berlin expressed support for the proposal's overarching goal: enhancing granularity on the LR002 Bond page. However, Berlin requested that column 2 on page LR002 be reserved exclusively for BSL CLOs. MM CLOs should continue to stay in column 1

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and be afforded the same charges as Bonds. The ACC and LSTA also requested the Academy to develop similar modeling for MM CLOs.

Tip Tipton (ACLI) addressed the ACLI's comment letter (Attachment XX). Tipton said the ACLI supports enhancement of disclosures, but since the ACLI is not in support of new RBC methodology effective year-end 2026, the ACLI has submitted a comment to the Blanks (E) Working Group to recommend effecting additional disclosures in investment schedules within annual statements, namely to bifurcate CLOs into i) BSL CLOs, ii) MM CLOs, and iii) Other CLOs.

Barlow clarified that the proposal, as further modified to MOD V.2 (Attachment XX), allows all CLOs (BSL, MM, or others) to be afforded a base CLO charge as recommended in Option 1. Line 7.2 was added to the modified proposal to allow assessment of thin charge surcharge, which is a uniform amount across NAIC 2.C. or below. While the modified draft only specifies assessment of thin tranche surcharge on BSL CLOs, the instruction can easily be amended to include both BSL and MM CLOs, if so desired by the Working Group. Adoption of the CLO RBC structure proposal will neither preclude future opportunities to effect instructional changes nor to change factors. Barlow reminded the Working Group that factor changes are contemplated in a separate proposal.

Clark made a motion, seconded by Reedy, to adopt Proposal 2025-22-IRE MOD V.2 (CLO RBC Structure). The motion passed unanimously.

#### 4. Exposed Proposal 2026-12-IRE (CLO RBC Factors)

Barlow said the proposal was drafted to reflect modeled factors recommended by the Academy under both Option 1 and Option 2. Hemphill asked whether the exposure of the proposal will preclude regulators from considering alternatives, such as Cheung's recommendation to floor factors at current Bond C-1 factors. Barlow said suggestions and recommendations are welcome during the exposure period.

In addition, the Academy recommended two alternatives for the CLO portfolio adjustment factor methodology. Due to time constraints, these alternatives will not be presented until the Working Group meets again. Barlow said if time is a concern, there is also the option to delay the Portfolio Adjustment Factors methodology until 2027. Proposal 2026-12-IRE (CLO RBC Factors) was drafted to accommodate either of the alternatives. However, details of the alternatives are not reflected in the proposal form. NAIC committee support recommended the exposure of the Academy presentation slide deck as a companion document to facilitate review of the proposal.

Hearing no objection from Working Group members, interested regulators, or interested parties, Barlow exposed the proposal for a 30-day public comment period ending June 5.

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

## Draft Pending Adoption

Draft: 4/14/26

Risk-Based Capital Investment Risk and Evaluation (E) Working Group  
Virtual Meeting  
April 10, 2026

The Risk-Based Capital Investment Risk and Evaluation (E) Working Group of the Capital Adequacy (E) Task Force met April 10, 2026. The following Working Group members participated: Philip Barlow, Chair (DC); Thomas Reedy, Vice Chair (CA); Wanchin Chou (CT); Carolyn Morgan (FL); Carrie Mears and Kevin Clark (IA); Matt Cheung (IL); Fred Andersen (MN); William Leung and Danielle Smith (MO); Tadd Wegner (NE); Jennifer Li (NH); Bob Kasinow, William B. Carmello, and Caryn Bailey (NY); Dale Bruggeman and Tom Botsko (OH); Rachel Hemphill (TX); Doug Stolte and Dan Bumpus (VA); Steve Drutz (WA); and Amy Malm (WI).

### 1. Heard an Update from the Academy on the CLO RBC Project, Focusing on Residual Tranches

Stephen Smith (American Academy of Actuaries—Academy) presented a collateralized loan obligation (CLO) C-1 factors modeling update focusing on residual tranches of CLOs (Attachment XX). Smith said the Academy tested the same universe of U.S. broadly syndicated loan (BSL) CLOs that it had for CLO debt tranches to prepare the presentation. The Academy noted a wide range of modeled risk across all those residual tranches. As such, the Academy does not have a strong argument for moving away from the current 45% pre-tax charge but also does not have conclusive analysis to defend it. Smith said the Academy tested the seven comparable attributes listed on the “Executive Summary” page. While some of them may be statistically significant in correlation with modeled risk, none of them were economically significant in adding precision, and, as such, the Academy recommends using a simple average modeled C-1.

Smith said two modeling choices were considered when modeling residuals’ C-1. The first consideration was which accounting treatment to assume. Residual tranches can be accounted for under the practical expedient (PE) approach, where distributions are accounted for as return of capital. Income recognition will only begin when the book value is written down to zero. Alternatively, insurers can opt for the allowable earned yield (AEY) method, which limits the income recognition to the calculated earned yield. Any distribution in excess of the AEY will be treated as a return of capital. Smith said the choice of accounting treatment has an impact on the risk-based capital (RBC) charge modeled. Smith then presented the “Estimating C-1 Under Practical Expedient Accounting” and “Estimating C-1 Under Allowable Earned Yield” pages. He said the basic concept in both calculations is measuring the risk of loss to statutory surplus or the risk of loss of starting statutory book value, which is sensitive to the accounting treatment elected.

The second modeling choice was depicted on the “Liability- versus Surplus-Backing Assumption” page. Smith said the Academy has assumed CLO debt tranches as liability-backing (like corporate bonds), whereas CLO residual tranches are surplus-backing (similar to common stocks and real estate assets). Barlow said one way to check the validity of the assumption is to determine whether residuals are used to back asset adequacy testing (AAT). Smith agreed and supplemented that the review of principle-based reserving (PBR) modeling also helps. While this modeling choice matters to residuals accounted for under the AEY method, it is not relevant if PE is elected.

Smith presented the “Practical Expedient vs. AEY” page, emphasizing that the distribution shown is the distribution of the estimated C-1 means. The actual distribution is even more dispersed. Smith said the current

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45% pre-tax, 35.55% post-tax RBC charge for residual seats, squarely between the two distributions, had AEY or PE approach been elected.

Smith then explained why modeled C-1 factors under PE are higher than those under AEY. He used a hypothetical residual investment with a book value (BV) of \$100 that received a \$40 distribution during the course of its life and ended up taking a \$20 loss. Under the PE approach, the BV is reduced by the distributions, and the reduced denominator effect exacerbates the RBC factor ( $\$20/\$60 = 33\%$ ). Had the AEY approach been used, the RBC factor would be only 20% ( $\$20/\$100$ ), assuming the \$40 distribution all goes into income recognition.

Clark asked why there is a \$20 loss to begin with under the PE approach. He thought that the recovered amount (\$80) was greater than the adjusted BV (\$60); therefore, no loss should be incurred. Smith said he would like to provide a supplement to the presentation after the meeting to help illustrate his point.

Cheung asked whether companies widely use both the AEY and PE approaches, or if one is preferred. Clark said there is no disclosure for the 2025 filing to help quantify, but based on what he gathered, most companies used the PE approach. He said that starting with 2026 statutory filings, companies will be required to report their election. Cheung then asked whether instituting different factors for different accounting elections would incentivize companies to elect based on the RBC charge. Smith said the difference of about 7%–8% RBC charge between the two approaches is likely a small difference. Barlow asked what factors come into play upon election other than RBC consideration. Clark responded that it is a trade-off between operational efficiency and the ability to recognize income earlier.

Smith pivoted to the “Initial Comparable Attributes Results” page and said the Academy, inspired by an Oliver Wyman study, primarily focused on two of the comparable attributes: 1) the deal’s worst debt credit rating; and 2) the residual tranche’s thickness/detachment point. Consistent with Oliver Wyman’s finding, the Academy concurred on the risk prediction power of these two comparable attributes. However, the Academy concluded that these comparable attributes do not add sufficient explanatory power to the model to justify the additional complexity of introducing more of them. Similar conclusions were also reached as Smith walked through “Limitations of Worst Credit Rating,” “Alternative Comparable Attributes Results,” and “Considering WAFR and Detachment Point” pages.

During the question and answer (Q&A) session, Reedy asked what the pre-tax RBC charge would be for CLO residuals should the Academy opt for a liability-backing assumption. Smith said it should be the same charge under the PE approach. As for the AEY approach, he did not have the charge calculated under a liability-backing assumption but said he believed such an assumption would lead to higher capital charges.

Barlow asked whether the wide range of modeled risks is attributable to how the CLOs are structured or to the points in the CLO’s life cycle. Smith responded that the latter is mostly the attributing factor. However, in order to be consistent with bonds’ C-1 factor modeling (namely, horizon-neutral assumption), the Academy decided against using the remaining horizon as a comparable attribute.

Chou asked if the Academy is planning to perform a deeper dive into middle market (MM) CLOs to compare against BSL CLO recommendations. Smith said the Academy is looking into the availability of data to perform modeling on MM CLOs. He said the Academy plans to notify the regulators about the feasibility and stands ready to assist if directed.

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Cheung asked how the 45% residual tranche RBC charge lines up with the proposed factors for CLO debt tranches. Smith said it is lower than some lower-rated debt tranches. Smith said this is attributable to the more conservative accounting treatment for residuals.

Clark commented that the AEY method is closely aligned with the accounting methodology of the debt tranches. He suggested that one should attribute the relatively lower residual charges to the fact that the Academy used a surplus-backing assumption for residuals. Smith agreed and supplemented that the assumed earned yield the Academy used has some embedded conservatism, as it is mostly single-digit returns, as opposed to the high teens or double-digit returns expected by insurers /investors. This relatively conservative earned yield assumption could drive residual charges down while simultaneously raising debt tranche charges.

Bailey said she was curious whether rating agencies assume the practical expedient method. Smith said residuals are not rated.

Angelica Sanchez (New York Life Insurance) said she wondered whether the relatively lower residual tranche charge would incentivize investment decisions (e.g., steering away from lower-rated debt tranches in favor of residual tranches). Smith said the Academy's recommended charges are just trying to capture the risk to statutory surplus. There is no intention to incentivize or disincentivize insurers' asset allocation. Smith reminded the Working Group that while the divergence in accounting treatment of debt versus residual tranches produced somewhat "counterintuitive" charges, one should also consider the numerator of the RBC ratio calculation, as the conservative accounting for residuals likely makes the numerator smaller faster.

Carmello requested that the Academy walk through the different accounting treatments for residual tranches versus debt tranches, as well as the mechanics of the AEY and PE approaches when accounting for residuals. Smith agreed to that request.

Barlow reminded the Working Group that the deadline for factor proposal exposure is May 15 and that the deadline for structural change proposal had already passed. As such, any desired structural changes to effect residual RBC will likely be implemented in 2027 or later.

After conferring with the Working Group, Barlow said he plans to expose via email the Academy's presentation, along with additional illustrative examples on accounting treatments, for a 60-day public comment period, starting on the day the Academy has the revised materials ready for exposure.

## 2. Discussed Other Matters

Barlow said the Academy is still developing methodology for CLO portfolio adjustment factors (PAFs). The current exposed proposal 2025-22-IRE includes a placeholder for potential PAF changes and therefore is still planning for 2026 implementation.

Based on the Academy's progress, Barlow said the Working Group will likely table updates to asset concentration and asset valuation reserve (AVR) factors for CLOs until 2027.

Barlow said the Working Group plans to meet May 6 to further its work on the CLO RBC project.

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

**Draft Pending Adoption**

**Draft Pending Adoption**

Attachment **XX**  
 Capital Adequacy (E) Task Force  
 --/--/26

Draft: 4/1/26

Risk-Based Capital Investment Risk and Evaluation (E) Working Group  
 San Diego, California  
 March 23, 2026

The Risk-Based Capital Investment Risk and Evaluation (E) Working Group of the Capital Adequacy (E) Task Force met in San Diego, CA, March 23, 2026. The following Working Group members participated: Philip Barlow, Chair (DC); Thomas Reedy, Vice Chair, and Ted Chang (CA); Wanchin Chou (CT); Carolyn Morgan (FL); Carrie Mears and Kevin Clark (IA); Matt Cheung (IL); Roy Eft (IN); Fred Andersen and Ben Slutsker (MN); Danielle Smith (MO); Tadd Wegner (NE); Jennifer Li (NH); Bob Kasinow and William B. Carmello (NY); Dale Bruggeman and Tom Botsko (OH); Jamie Walker and Rachel Hemphill (TX); Doug Stolte and Dan Bumpus (VA); Steve Drutz and Katy Bardsley (WA); and Amy Malm (WI). Also participating was: Diana Sherman (PA).

1. Adopted its March 2 Minutes

Barlow said the Working Group met March 2 and took the following action: 1) adopted its Dec. 15, 2025, minutes; 2) received comments on the American Academy of Actuaries' (Academy's) Dec. 15 presentation; 3) heard an update from the Academy on the collateralized loan obligation (CLO) risk-based capital (RBC) project; and 4) exposed the Academy's March 2 CLO RBC project presentation for a 45-day public comment period ending April 16.

Barlow also reported that the Working Group met March 19 in regulator-to-regulator session pursuant to paragraph 3 (specific companies, entities, or individuals) of the NAIC Policy Statement on Open Meetings. During this meeting, the Working Group: 1) discussed comments and/or questions in response to the Academy's March 2 CLO RBC project presentation; and 2) discussed the RBC impact analysis. No action was taken at the meeting.

Botsko made a motion, seconded by Eft, to adopt the Working Group's March 2 minutes (**Attachment XX**). The motion passed unanimously.

2. Received Updates from the Invested Assets (E) Task Force and the Statutory Accounting Principles (E) Working Group

Mears provided an update on behalf of the Invested Assets (E) Task Force. She highlighted several planned agenda items for the Task Force's meeting, including: 1) receiving reports from the Investment Designation Analysis (E) Working Group, Credit Rating Provider (E) Working Group, and Investment Analysis (E) Working Group; and 2) hearing an educational presentation regarding insurance companies' investments in residential mortgage loans.

Clark provided an update on behalf of the Statutory Accounting Principles (E) Working Group. He reported that there are several investment-related adoptions and exposures at the Working Group. First, the Working Group adopted revisions to *Statement of Statutory Accounting Principles (SSAP) No. 103—Transfers and Servicing of Financial Assets and Extinguishments of Liabilities* to allow the admission of long-term repurchase agreements. In addition, the Working Group is deliberating the restricted asset code disclosures on the investment schedule and seeking feedback on the usefulness of the codes. The Working Group also exposed a proposed new SSAP and an issue paper to incorporate guidance for qualifying asset-liability management derivative programs, permitting the derivatives to be recognized at amortized cost, with gains and losses recognized as deferred liabilities/assets and

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amortized over time. The Working Group directed NAIC staff to work with industry on revisions to *SSAP No. 48—Joint Ventures, Partnerships and Limited Liability Companies* to clarify the accounting and reporting guidance for joint ventures, partnerships, and LLCs, and to clarify the disclosure revisions proposed for commitments and contingencies. These projects have potential ramifications for RBC. Finally, Clark said NAIC staff will review 2025 annual filings and perform post-implementation reviews of: 1) a new principle-based bond definition classification; and 2) optionality in accounting for residual tranches/interests.

### 3. Heard an Update from the Academy on the CLO RBC Project

Stephen Smith (Academy) presented a CLO C-1 factors modeling update (Attachment XX). Smith said his presentation is intended to respond to questions raised during his March 2 presentation. In response to the request to better understand the regression model, Smith presented the “Regression Results – Interpretation” page, which illustrated specifically how the modeled C-1 factor for the Baa3 CLO tranche is derived. Smith said the modeled C-1 factor is composed of different components: the Baa3 coefficient is directly driven by rating, while the reinvestment coefficient is the same across all the ratings. The reinvestment interaction increases as the rating becomes less favorable because the reinvestment horizon matters more for lower-rated CLO tranches than for the higher-rated CLO tranches. The low-quality/low-thickness premium is a key component of the modeled C-1 factor and is only applicable to Baa3 CLO tranches or below. Mear asked and Smith clarified that the low-quality/low-thickness premium is constant across rating buckets, as it is developed using all Baa3 and below tranches as one cohort.

Smith then explained why the Academy chose 4% as the cutoff between “low thickness” and “high thickness” tranches. Smith said 4% was chosen because it is reasonable for a Baa3 CLO tranche. He stated that 4% may not be the most reasonable cutoff for other CLO tranches, such as Ba3 (refer to the “Kernel Density Estimation – Ba2/Ba3” page), but since a large majority of insurance holdings of lower-rated CLO tranches clustered at Baa3 (about five-sixths of the total), the Academy chose 4%.

Smith then presented the sensitivities if other tranche thickness cutoffs were used. He said that using 4.25% as the cutoff reduces thick Baa3 tranche charges by 39 basis points but increases the thin Baa3 tranche charges by 153 basis points. Smith emphasized that the purpose of presenting the sensitivity is not to suggest changing the 4% thickness cutoff, but to illustrate that the Academy has exercised discretion. Hemphill sought clarification on whether the Academy would weigh in on a 4% versus 4.25% cutoff. Smith responded that both cutoffs are reasonable.

Cheung stated that he understood that the current dataset informs the cutoff. He wondered how likely it was that changes in the CLO structure over time would require revisiting the cutoff. Smith quoted a recently published sell-side research report, stating that while most CLOs now have a thin Baa3 tranche, the industry will likely move away from this structure if the NAIC adopts the tranche thickness proposal. Without the adoption, however, Smith said he believed the industry would capitalize on the more favorable capital charge and therefore benefit from the thin tranche structure. Clark said he felt the need for greater surveillance by the Credit Rating Provider (E) Working Group, knowing that the structuring of thin CLO tranche stemmed from divergent rating methodologies among rating agencies.

Smith presented another modeling decision illustrated in the “Interaction Terms for Reinvestment Horizon” page. He said that in order to define the reinvestment interaction term, the Academy grouped credit ratings into six rating buckets. Due to sample-size issues (i.e., insufficient sample sizes for certain ratings), grouping is necessary to aid statistical credibility. Smith said A3 is very small, accounting for only about 0.15% of the dataset. The

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Academy bucketed A3 with Baa1 and Baa2, resulting in a 1.45% modeled C-1 charge. Had A3 been bucketed with Aa3, A1, and A2, the resulting factor would be much lower (0.16%). Hemphill asked whether averaging the two would be a reasonable approach. Smith said it would and that he does not believe there is an argument against using the average.

Finally, Smith walked through the “Value-at-Risk, by Rating and Percentile” pages to demonstrate that while bond C-1 factors are largely based on percentiles, conditional tail expectation (CTE) is a more appropriate risk measure for CLOs, as the risk charges derived from the CTE approach are driven by the extrapolated values deeper in the tail. Hemphill asked why the charts shown on these pages are not monotonic when reading from left to right across rows. Smith explained by walking through the process of deriving these “percentiles.” Smith said the starting point was not modeling the individual CLOs but rather modeling the entire universe of collaterals (bank loans), ranking the order of 10,000 credit-loss scenarios for this collateral pool, and deriving percentiles. With these percentiles, the Academy was able to sum across all of the CLOs to produce the data shown on the page. This process explained why the percentiles shown are not monotonic across the rows. Smith explained that this methodology resolved the computing constraints and offered a better alignment to C-1 bond modeling, which was also performed at the portfolio level as opposed to the asset level. Chang observed that the results for A3 tranches showed relatively low risk. Smith attributed the “anomaly” to a small sample size and the coincidence that the deals within the A3 bucket have a very short reinvestment horizon.

Reedy asked what additional considerations should be made to develop factors for middle-market (MM) CLOs. Smith said the biggest challenge is that collaterals of MM CLOs are unrated. That said, the MM CLOs themselves are often rated by rating agencies, and as such, the Academy can seek credit assessments of underlying collaterals from rating agencies, if so directed by the Working Group. Eft showed interest in exploring this topic. Barlow said he is open to put out a request. However, Smith was unsure about availability as he had not asked for those in the past. He also asked the Working Group to evaluate whether it is comfortable relying on credit assessments. In addition, Smith clarified that the Academy did not observe the typical tranche thickness of MM CLOs and therefore cannot conclude whether 4% tranche thickness is a meaningful risk cutoff for MM CLOs. Barlow said that he thought MM CLOs are relatively immaterial. Smith said that about 20% of CLOs issued are MM CLOs. This percentage is likely also true for insurance companies’ holdings.

Barlow noted that, due to a lack of data, the Academy did not model C-1 for NAIC 6 CLOs. He suggested using the average of the factor of NAIC 5.C. and a factor of 100%. He asked stakeholders to consider commenting on this suggestion.

#### 4. Received Comments on Proposal 2025-22-IRE CLO RBC Structure

Marc Altschull (American Council of Life Insurers—ACLI) spoke to the ACLI’s comment letter (Attachment XX) regarding proposal 2025-22-IRE. Altschull stated that the ACLI supports providing flexibility in the blank structure to allow differentiation in the application of factors among bonds, broadly syndicated loan (BSL) CLOs, and MM CLOs. Altschull sought input from the Academy on the relevance of the modeled factors to be applied to MM CLOs. Smith reiterated the challenge and said he believed it would be a judgment call for regulators. In addition, the ACLI suggests including rows to differentiate BSL and MM CLOs by tranche thickness.

Clark said rigorous analysis performed by the Academy has shown that rating is an important comparable attribute for BSL CLOs. He sought to understand the need to separate BSL CLOs from MM CLOs when effecting RBC methodology, given that: 1) BSL and MM CLOs are very similar asset classes; and 2) rating agencies should have captured nuances within MM CLOs, such as the credit quality of the underlying loans and the differences in

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structures. Smith concurred, with the caveat on tranche thickness, that the work performed by the Academy validates that rating agencies' ratings are useful for determining tail risk. Mears agreed and believed that the Academy's conclusion on the use of rating as a comparable attribute can be analogized to MM CLOs. She acknowledged that the Academy may need more time to conclude on the tranche thickness cut-off for MM CLOs, but that should not preclude the Working Group from opting for the rating-only option (Option 1) for 2026.

### 5. Exposed Modified Proposal 2025-22-IRE MOD (CLO RBC Structure)

Barlow said NAIC staff developed proposal 2025-22-IRE MOD, which incorporates tranche thickness as a comparable attribute. To achieve operational efficiency, the proposal used one line to capture all thin-tranche CLOs rated Baa3 or lower. If the Working Group is not in favor of adding tranche thickness, staff can adjust the factor while still allowing information gathering. The modified proposal does not include the structure to differentiate between BSL and MM CLOs. Barlow said that based on discussions, he did not believe that complexity should be introduced and cautioned about the downstream ramifications to the structure if further granularity is incorporated.

Hearing no objection from Working Group members and other stakeholders, the proposal was exposed for a 25-day public comment period ending April 17 (Attachment XX).

### 6. Discussed Other Matters

Barlow said that the Academy is working on portfolio adjustment factors and residual tranche RBC methodologies. He said the Working Group plans to meet in April to hear a presentation of the findings.

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

SharePoint/NAIC Support Staff Hub/Committees/E CMTE/CADTF/2026-1-Spring/IRE/RBCIREWG 03-23-26 SPGNM Minutes TPR'd.docx

# Proposed CLO C-1 Factors

June 23, 2026

Stephen Smith, MAAA, FSA, CFA  
Chairperson, Academy C-1 Subcommittee

## About the Academy

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**Mission:**

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Serving over 20K MAAs & public stakeholders for 60 years



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## Post-Tax Factors

3

The Academy proposed factors of 1.45% and 0.16% for A3 under two methods; the average is recommended

### Investment Grade

Rating	Simple Average Raw C-1	Modeled C-1	
		Thickness > 4%	Thickness ≤ 4%
Aaa	0.03%	<b>0.03%</b>	
Aa1	0.28%	<b>0.04%</b>	
Aa2	0.00%	<b>0.04%</b>	
Aa3	0.00%	<b>0.04%</b>	
A1	0.40%	<b>0.14%</b>	
A2	0.11%	<b>0.14%</b>	
A3	0.12%	<b>0.80%</b>	
Baa1	1.58%	<b>1.81%</b>	
Baa2	3.02%	<b>2.70%</b>	
Baa3	5.94%	<b>2.73%</b>	<b>12.52%</b>

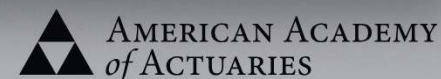
### Below Investment Grade

Rating	Simple Average Raw C-1	Modeled C-1	
		Thickness > 4%	Thickness ≤ 4%
Ba1	20.70%	<b>12.59%</b>	<b>22.39%</b>
Ba2	27.37%	<b>20.93%</b>	<b>30.72%</b>
Ba3	28.92%	<b>23.28%</b>	<b>33.08%</b>
B1	17.34%	<b>26.04%</b>	<b>35.84%</b>
B2	30.81%	<b>35.20%</b>	<b>44.99%</b>
B3	56.39%	<b>47.32%</b>	<b>57.12%</b>
Caa1	57.60%	<b>48.12%</b>	<b>57.92%</b>
Caa2	66.51%	<b>55.20%</b>	<b>64.99%</b>
Caa3	77.33%	<b>70.82%</b>	<b>80.61%</b>
Residual <sup>1</sup>	33.98%	<b>35.55%</b>	

#### 1. Under practical expedient accounting

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CISC Update on CLO C-1 Factors Modeling  
June 23, 2026



## Pre-Tax Factors

4

The Academy applies a tax rate of 21% with the assumption of 80% tax recovery

### Investment Grade

Rating	Simple Average Raw C-1	Modeled C-1	
		Thickness > 4%	Thickness ≤ 4%
Aaa	0.04%	<b>0.04%</b>	
Aa1	0.34%	<b>0.05%</b>	
Aa2	0.00%	<b>0.05%</b>	
Aa3	0.00%	<b>0.05%</b>	
A1	0.48%	<b>0.17%</b>	
A2	0.13%	<b>0.17%</b>	
A3	0.14%	<b>0.97%</b>	
Baa1	1.90%	<b>2.18%</b>	
Baa2	3.63%	<b>3.24%</b>	
Baa3	7.14%	<b>3.28%</b>	<b>15.05%</b>

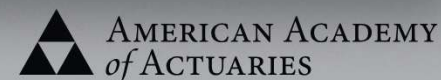
### Below Investment Grade

Rating	Simple Average Raw C-1	Modeled C-1	
		Thickness > 4%	Thickness ≤ 4%
Ba1	24.88%	<b>15.14%</b>	<b>26.91%</b>
Ba2	32.90%	<b>25.15%</b>	<b>36.93%</b>
Ba3	34.76%	<b>27.99%</b>	<b>39.76%</b>
B1	20.84%	<b>31.30%</b>	<b>43.07%</b>
B2	37.03%	<b>42.31%</b>	<b>54.08%</b>
B3	67.78%	<b>56.88%</b>	<b>68.65%</b>
Caa1	69.23%	<b>57.84%</b>	<b>69.61%</b>
Caa2	79.94%	<b>66.34%</b>	<b>78.12%</b>
Caa3	92.94%	<b>85.12%</b>	<b>96.89%</b>
Residual <sup>1</sup>	43.01%	<b>45.00%</b>	

#### 1. Under practical expedient accounting

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CISC Update on CLO C-1 Factors Modeling  
June 23, 2026



## Appendix—Background on A3 Factors from 2026 NAIC Spring National Meeting (Pages 15–17 from March 23, 2026 presentation)

## Interaction Terms for Reinvestment Horizon

6

- A3 has a lower average reinvestment horizon than the full universe (0.55 years vs. 2.40 years), leading to a lower C1 factor than adjacent ratings
- When regressing against reinvestment horizon, we need interaction terms (with rating) to account for the non-linear impact of horizon (greater impact on lower ratings)
- If A3 is grouped with Baa1/Baa2 for interaction terms, its C1 factor is **1.45%**
- If A3 is grouped with Aa3/A1/A2 for interaction terms, its C1 factor is **0.16%**
- The outlier reinvestment horizon and poor credibility for A3 makes its C1 factor sensitive to model assumptions and setup

# Regression Results—A3 with Baa1/Baa2

7

Residuals:  
 Min 1Q Median 3Q Max  
 -0.70926 -0.00145 -0.00037 0.00031 0.84095

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
Aaa	6.039e-04	1.788e-03	0.338	0.7356
Aa1	3.094e-03	4.138e-03	0.748	0.4547
Aa2	4.661e-04	2.672e-03	0.174	0.8615
Aa3	-3.794e-05	8.282e-03	-0.005	0.9963
A1	3.657e-03	4.713e-03	0.776	0.4378
A2	6.176e-04	2.863e-03	0.216	0.8292
A3	-2.676e-03	1.069e-02	-0.250	0.8024
Baa1	9.042e-04	6.104e-03	0.148	0.8822
Baa2	9.849e-03	5.556e-03	1.773	0.0763
Baa3	-1.735e-02	2.705e-03	-6.416	1.45e-10 ***
Ba1	8.131e-02	6.768e-03	12.014	< 2e-16 ***
Ba2	1.647e-01	7.998e-03	20.588	< 2e-16 ***
Ba3	1.286e-01	2.845e-03	45.206	< 2e-16 ***
B1	1.562e-01	5.507e-03	28.356	< 2e-16 ***
B2	2.477e-01	1.342e-02	18.461	< 2e-16 ***
B3	4.999e-01	7.064e-03	70.771	< 2e-16 ***
Caa1	5.079e-01	9.850e-03	51.564	< 2e-16 ***
Caa2	5.787e-01	9.871e-03	58.624	< 2e-16 ***
Caa3	7.349e-01	9.033e-03	81.356	< 2e-16 ***
REINV_END_DATE	-1.115e-02	2.000e-03	-5.575	2.53e-08 ***
REINV_END_DATE_1	1.102e-02	2.087e-03	5.281	1.31e-07 ***
REINV_END_DATE_2	1.097e-02	2.169e-03	5.055	4.37e-07 ***
REINV_END_DATE_3	1.132e-02	2.191e-03	5.168	2.40e-07 ***
REINV_END_DATE_4	1.832e-02	2.491e-03	7.354	2.04e-13 ***
REINV_END_DATE_5	2.977e-02	2.170e-03	13.721	< 2e-16 ***
REINV_END_DATE_6	5.467e-02	2.251e-03	24.282	< 2e-16 ***
LOW_QUAL_LOW_THICK	9.795e-02	2.780e-03	35.233	< 2e-16 ***

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 Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.06828 on 12859 degrees of freedom  
 Multiple R-squared: 0.8618, Adjusted R-squared: 0.8615  
 F-statistic: 2970 on 27 and 12859 DF, p-value: < 2.2e-16

## Implied Factors

Rating	Modeled C-1		Rating	Modeled C-1	
	Thickness > 4%	Thickness ≤ 4%		Thickness > 4%	Thickness ≤ 4%
Aaa	0.03%		Ba1	12.59%	22.39%
Aa1	0.04%		Ba2	20.93%	30.72%
Aa2	0.04%		Ba3	23.28%	33.08%
Aa3	0.04%		B1	26.04%	35.84%
A1	0.14%		B2	35.20%	44.99%
A2	0.14%		B3	47.32%	57.12%
A3	1.45%		Caa1	48.12%	57.92%
Baa1	1.81%		Caa2	55.20%	64.99%
Baa2	2.70%		Caa3	70.82%	80.61%
Baa3	2.73%	12.52%			

# Regression Results—A3 with Aa3/A1/A2

Residuals:  
 Min 1Q Median 3Q Max  
 -0.70926 -0.00142 -0.00038 0.00027 0.84094

Coefficients:

	Estimate	Std. Error	t value	Pr(> t )
Aaa	6.039e-04	1.788e-03	0.338	0.736
Aa1	3.094e-03	4.138e-03	0.748	0.455
Aa2	4.661e-04	2.672e-03	0.174	0.862
Aa3	-3.707e-05	8.282e-03	-0.004	0.996
A1	3.665e-03	4.711e-03	0.778	0.437
A2	6.281e-04	2.856e-03	0.220	0.826
A3	1.147e-03	1.067e-02	0.107	0.914
Baa1	5.879e-04	6.120e-03	0.096	0.923
Baa2	9.417e-03	5.588e-03	1.685	0.092
Baa3	-1.735e-02	2.704e-03	-6.416	1.49e-10 ***
Ba1	8.131e-02	6.768e-03	12.014	< 2e-16 ***
Ba2	1.647e-01	7.998e-03	20.589	< 2e-16 ***
Ba3	1.286e-01	2.845e-03	45.207	< 2e-16 ***
B1	1.562e-01	5.507e-03	28.356	< 2e-16 ***
B2	2.477e-01	1.342e-02	18.461	< 2e-16 ***
B3	4.999e-01	7.064e-03	70.772	< 2e-16 ***
Caa1	5.079e-01	9.850e-03	51.565	< 2e-16 ***
Caa2	5.787e-01	9.871e-03	58.626	< 2e-16 ***
Caa3	7.349e-01	9.033e-03	81.357	< 2e-16 ***
REINV_END_DATE	-1.115e-02	2.000e-03	-5.575	2.53e-08 ***
REINV_END_DATE_1	1.102e-02	2.087e-03	5.281	1.31e-07 ***
REINV_END_DATE_2	1.097e-02	2.169e-03	5.055	4.37e-07 ***
REINV_END_DATE_3	1.132e-02	2.190e-03	5.170	2.38e-07 ***
REINV_END_DATE_4	1.847e-02	2.500e-03	7.389	1.57e-13 ***
REINV_END_DATE_5	2.977e-02	2.170e-03	13.721	< 2e-16 ***
REINV_END_DATE_6	5.467e-02	2.251e-03	24.283	< 2e-16 ***
LOW_QUAL_LOW_THICK	9.795e-02	2.780e-03	35.233	< 2e-16 ***

---  
 Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.06828 on 12859 degrees of freedom  
 Multiple R-squared: 0.8618, Adjusted R-squared: 0.8615  
 F-statistic: 2970 on 27 and 12859 DF, p-value: < 2.2e-16

## Implied Factors

Rating	Modeled C-1	
	Thickness > 4%	Thickness ≤ 4%
Aaa	0.03%	
Aa1	0.04%	
Aa2	0.04%	
Aa3	0.04%	
A1	0.14%	
A2	0.14%	
A3	0.16%	
Baa1	1.81%	
Baa2	2.70%	
Baa3	2.73%	12.52%

Rating	Modeled C-1	
	Thickness > 4%	Thickness ≤ 4%
Ba1	12.59%	22.39%
Ba2	20.93%	30.72%
Ba3	23.28%	33.08%
B1	26.04%	35.84%
B2	35.20%	44.99%
B3	47.32%	57.12%
Caa1	48.12%	57.92%
Caa2	55.20%	64.99%
Caa3	70.82%	80.61%

## Questions?

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For more information, please contact  
**Katie Dzurec**  
the Academy's Director, Public Policy Outreach  
**[dzurec@actuary.org](mailto:dzurec@actuary.org)**

## Capital Adequacy (E) Task Force

### RBC Proposal Form

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Capital Adequacy (E) Task Force                      | <input type="checkbox"/> Health RBC (E) Working Group      | <input type="checkbox"/> Life RBC (E) Working Group                                    |
| <input type="checkbox"/> Catastrophe Risk (E) Subgroup                        | <input type="checkbox"/> P/C RBC (E) Working Group         | <input type="checkbox"/> Longevity Risk (A/E) Subgroup                                 |
| <input type="checkbox"/> Variable Annuities Capital. & Reserve (E/A) Subgroup | <input type="checkbox"/> Economic Scenarios (E/A) Subgroup | <input checked="" type="checkbox"/> RBC Investment Risk & Evaluation (E) Working Group |

<p style="text-align: right;"><b>DATE:</b> <u>5/1/2026</u></p> <p><b>CONTACT PERSON:</b> <u>Maggie Chang</u></p> <p><b>TELEPHONE:</b> <u>816-783-8976</u></p> <p><b>EMAIL ADDRESS:</b> <u>mchang@naic.org</u></p> <p><b>ON BEHALF OF:</b> <u>Risk-Based Capital Investment Risk and Evaluation (E) Working Group</u></p> <p><b>NAME:</b> <u>Philip Barlow, Chair</u></p> <p><b>TITLE:</b> <u>Associate Commissioner of Insurance</u></p> <p><b>AFFILIATION:</b> <u>District of Columbia</u></p> <p><b>ADDRESS:</b> <u>1050 First Street, NE Suite 801</u> <u>Washington, DC 20002</u></p>	<p style="text-align: center;"><b>FOR NAIC USE ONLY</b></p> <p>Agenda Item # <u>2026-12-IRE</u> Year <u>2026</u></p> <p style="text-align: center;"><b>DISPOSITION</b></p> <p><b>ADOPTED:</b></p> <p><input type="checkbox"/> TASK FORCE (TF) _____</p> <p><input type="checkbox"/> WORKING GROUP (WG) _____</p> <p><input type="checkbox"/> SUBGROUP (SG) _____</p> <p><b>EXPOSED:</b></p> <p><input type="checkbox"/> TASK FORCE (TF) _____</p> <p><input type="checkbox"/> WORKING GROUP (WG) _____</p> <p><input type="checkbox"/> SUBGROUP (SG) _____</p> <p><b>REJECTED:</b></p> <p><input type="checkbox"/> TF <input type="checkbox"/> WG <input type="checkbox"/> SG _____</p> <p><b>OTHER:</b></p> <p><input type="checkbox"/> DEFERRED TO _____</p> <p><input type="checkbox"/> REFERRED TO OTHER NAIC GROUP _____</p> <p><input type="checkbox"/> (SPECIFY) _____</p>
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#### IDENTIFICATION OF SOURCE AND FORM(S)/INSTRUCTIONS TO BE CHANGED

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Health RBC Blanks       | <input type="checkbox"/> Property/Casualty RBC Blanks       | <input checked="" type="checkbox"/> Life and Fraternal RBC Blanks       |
| <input type="checkbox"/> Health RBC Instructions | <input type="checkbox"/> Property/Casualty RBC Instructions | <input checked="" type="checkbox"/> Life and Fraternal RBC Instructions |
| <input type="checkbox"/> Health RBC Formula      | <input type="checkbox"/> Property/Casualty RBC Formula      | <input checked="" type="checkbox"/> Life and Fraternal RBC Formula      |
| <input type="checkbox"/> OTHER _____             |   |   |

#### DESCRIPTION/REASON OR JUSTIFICATION OF CHANGE(S)

This proposal incorporates CLOs' Modeled C-1 factors presented by the American Academy of Actuaries on March 2, 2026. Note that the factors are adjusted for tax as the Modeled C-1 factors presented are on an after-tax basis. The Academy did not propose C-1 factor for NAIC 6 CLOs due to limited sample for modelling. Based on Working Group's discussion, NAIC staff has taken an arithmetic mean of 1 and NAIC 5.C. factor, arriving at 92.56% pre-tax factor for NAIC 6.

#### Additional Staff Comments:

5/1/2026 – building on Proposal 2025-22-IRE (CLO RBC Structure) MOD V.2, NAIC staff has identified further refinements in LR002 in order to effectuate Portfolio Adjustment Factor (PAF) methodology proposed by the Academy. All proposed edits **highlighted in green within the RBC Blanks.** (mkc)

Note that this proposal comes with two options – Option 1 and Option 2 to reflect Academy's recommendation as excerpt below. For Option 2, it was noted that the prevalent surcharge on thin tranches was 9.79% post tax, as such, to streamline the structure, NAIC staff proposed a flat surcharge of 11.77% (i.e. 9.79%/0.832)

## Option 1—Rating Only (After-Tax Factors)

12

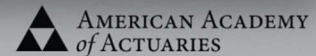
## Investment Grade

Rating	Simple Average Raw C-1	Modeled C-1
Aaa	0.03%	<b>0.03%</b>
Aa1	0.28%	<b>0.04%</b>
Aa2	0.00%	<b>0.04%</b>
Aa3	0.00%	<b>0.04%</b>
A1	0.40%	<b>0.14%</b>
A2	0.11%	<b>0.14%</b>
A3	0.12%	<b>1.45%</b>
Baa1	1.58%	<b>1.81%</b>
Baa2	3.02%	<b>2.70%</b>
Baa3	5.94%	<b>2.73%</b>

## Below Investment Grade

Rating	Simple Average Raw C-1	Modeled C-1
Ba1	20.70%	<b>12.59%</b>
Ba2	27.37%	<b>20.93%</b>
Ba3	28.92%	<b>23.28%</b>
B1	17.34%	<b>26.04%</b>
B2	30.81%	<b>35.20%</b>
B3	56.39%	<b>47.32%</b>
Caa1	57.60%	<b>48.12%</b>
Caa2	66.51%	<b>55.20%</b>
Caa3	77.33%	<b>70.82%</b>

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## Option 2—Rating &amp; Tranche Thickness (After-Tax Factors)

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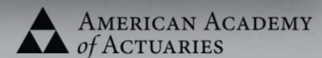
## Investment Grade

Rating	Simple Average Raw C-1	Modeled C-1	
		Thickness > 4%	Thickness ≤ 4%
Aaa	0.03%	<b>0.03%</b>	
Aa1	0.28%	<b>0.04%</b>	
Aa2	0.00%	<b>0.04%</b>	
Aa3	0.00%	<b>0.04%</b>	
A1	0.40%	<b>0.14%</b>	
A2	0.11%	<b>0.14%</b>	
A3	0.12%	<b>1.45%</b>	
Baa1	1.58%	<b>1.81%</b>	
Baa2	3.02%	<b>2.70%</b>	
Baa3	5.94%	<b>2.73%</b>	<b>12.52%</b>

## Below Investment Grade

Rating	Simple Average Raw C-1	Modeled C-1	
		Thickness > 4%	Thickness ≤ 4%
Ba1	20.70%	<b>12.59%</b>	<b>22.39%</b>
Ba2	27.37%	<b>20.93%</b>	<b>30.72%</b>
Ba3	28.92%	<b>23.28%</b>	<b>33.08%</b>
B1	17.34%	<b>26.04%</b>	<b>35.84%</b>
B2	30.81%	<b>35.20%</b>	<b>44.99%</b>
B3	56.39%	<b>47.32%</b>	<b>57.12%</b>
Caa1	57.60%	<b>48.12%</b>	<b>57.92%</b>
Caa2	66.51%	<b>55.20%</b>	<b>64.99%</b>
Caa3	77.33%	<b>70.82%</b>	<b>80.61%</b>

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**\*\* This section must be completed on all forms.**

**Revised 2-2023**

## BONDS

### LR002

#### *Basis of Factors*

The bond factors are based on cash flow modeling using historically adjusted default rates for each bond category. For each of 2,000 trials, annual economic conditions were generated for the 10-year modeling period. Each bond of a 400-bond portfolio was annually tested for default (based on a “roll of the dice”) where the default probability varies by designation category and that year’s economic environment. When a default takes place, the actual loss considers the expected principal loss by category, the time until the sale actually occurs and the assumed tax consequences.

Actual surplus needs are reduced by incorporating anticipated annual contributions to the asset valuation reserve (AVR) as offsetting cash flow. Required surplus for a given trial is calculated as the amount of initial surplus funds needed so that the accumulation with interest of this initial amount and subsequent cash flows will not become negative at any point throughout the modeling period. The factors chosen for the proposed formula produce a level of surplus at least as much as needed in 92% of the trials by category and a 96% level for the entire bond portfolio.

The factor for NAIC 6 bonds recognizes that the book/adjusted carrying value of these bonds reflects a loss of value upon default by being marked to market.

#### *Specific Instructions for Application of the Formula*

##### Lines (1) through (7)

The book/adjusted carrying value of all bonds, excluding collateralized loan obligations (CLOs), Collateralized Bond Obligations (CBOs), and Collateralized Debt Obligations (CDOs) and related fixed-income investments should be reported in Column (1). The bonds are split into seven different risk classifications. For long-term bonds, these classifications are found on Lines A1 through A7 of the Asset Valuation Reserve Default Component, Page 30 of the annual statement.

The book/adjusted carrying value of all collateralized loan obligations CLOs/CBOs/CDOs should be reported in Column 2. The collateralized loan obligations-CLOs/CBOs/CDOs are split into six different risk classifications. These classifications are found on Lines A9.1 through A14 of the Asset Valuation Reserve Default Component, Page 30 of the annual statement.

##### Line (7.2)

Amounts reported in Column (2) line (7.2) should include book/adjusted carrying value of Broadly Syndicated Bank Loans (BSL) CLO tranches (as defined below) with [current] tranche thickness less than or equal to [4%] (as defined below).

BSL are typically syndicated corporate loans distributed to a broad base of institutional investors and rated by credit rating agencies. BSL CLOs are primarily backed by syndicated corporate loans.

[Current] Tranche thickness is defined as the difference between the attachment point (AP) and the detachment point (DP) of a CLO tranche. AP refers to tranche’s subordination percentage, and DP is the percentage of total par amount of the underlying portfolio including principal proceeds, that will completely write off the tranche. The current tranche thickness is to be measured using the most recent periodic report available, without being stale, as of the investment reporting date.

[Drafting Note – Depending on whether Option 1 or Option 2 is being adopted]

Option 1 – Column (3) defaults to zero.

Option 2 - It was noted that the prevalent surcharge on thin tranches was 9.79% post-tax, as such, to streamline the structure, NAIC staff proposed a flat surcharge of 11.27% (i.e. 9.79%\*0.832) and is hard-coded in Column (3).

##### Line (8)

The total should equal long-term bonds and other fixed income instruments reported on Page 2, Column 3, Line 1

plus Schedule DL Part 1, Column 6, Line 2009999999 of the annual statement.

Lines (9) through (15)

The book/adjusted carrying value of all short-term and cash equivalent bonds ~~and related fixed-income investments~~ should be reported in Column (1). The bonds are split into seven different risk classifications. For short-term bonds, these classifications are found on Lines ~~18-C1~~ through ~~24-C7~~ of the Asset Valuation Reserve Default Component, ~~Page 30~~ of the annual statement. For cash equivalent bonds, these classifications are found in Footnotes to Schedule E, Part 2.

Line (16)

The total should equal short-term bonds reported on Schedule DA, Part 1, Column 6 Line 0509999999 plus Schedule DL Part 1, Column 6, Line 9509999999 plus Schedule E, Part 2, Column 7, Line 0509999999.

Line (22)

Class 1 bonds (highest quality) issued by a U.S. government agency that are not backed by the full faith and credit of the U.S. government should be reported on this line. The loan-backed securities of the Federal National Mortgage Association (FNMA) and the Federal Home Loan Mortgage Corporation (FHLMC) would be examples of the securities reported on this line. Line (22) should not be larger than the sum of Lines (2) and (10). Exempt obligations should not be included on this line.

Line (23)

Column (1) and Column (2) require Company to bifurcate Line (21) Column (4) "Total RBC Requirement" into Non-CLO RBC Requirement (Column 1) and CLO RBC Requirement (Column 2) components. For Non-CLO (Column 1), the amount needs to be further reduced by Column (4) Line (1), Column (4) Line (9) and Column (4) Line (22). The sum of Column (1) and Column (2) should agree to Column (4).

Line (24)

Bonds should be aggregated by issuer (the first six digits of the CUSIP number can be used). Exempt U.S. government bonds and bonds reported on Line (22) are not counted in determining the size factor. The RBC for those bonds will not be included in the base to which the size factor is applied. If this field is left blank, the maximum size factor adjustment of 2.40 will be used.

Line (25)

The size factor reflects the higher risk of a bond portfolio that contains relatively fewer bonds. The overall factor decreases as the portfolio size increases. The size factor is based on the weighted number of issuers. (The calculation shown below will not appear on the RBC filing software but will be calculated automatically.)

<u>Line (25)</u>	<u>Source</u>	(a) <u>Number of Issuers</u> <u>(for bonds, excluding CLOs/CBOs/CDOs)</u>	(b) <u>Weighted Issuers</u> <u>(for bonds, excluding CLOs/CBOs/CDOs)</u>
First 50	Company Records	X 2.40 =	
Next 50	Company Records	X 1.53 =	
Next 100	Company Records	X 0.85 =	
Next 300	Company Records	X 0.85 =	
Over 500	Company Records	X 0.82 =	
<u>(i) Total Number of Issuers from Line (24) Column (1)</u>		=====	
<u>(ii) Total Weighted Issuers (for bonds, excluding</u>			=====

CLOs/CBOs/CDOs)  
 Size Factor = Total Weighted  
 Issuers (ii) Divided by Total  
 Number of Issuers (i)

	<u>Source</u>	(a) <u>Number of Issuers (for CLOs/CBOs/ CDOs)</u>				(b) <u>Weighted Issuers (for CLOs/CBOs/CDOs)</u>
First XX*	Company Records	_____	X	TBD	=	_____
Next XX*	Company Records	_____	X	TBD	=	_____
Next XXX*	Company Records	_____	X	TBD	=	_____
Next XXX*	Company Records	_____	X	TBD	=	_____
Over XXX*	Company Records	_____	X	TBD	=	_____
(iii) Total Number of Issuers from Line (24) Column (2)		_____				
(iv) Total Weighted Issuers (for CLOs/CBOs/CDOs)		_____				_____
Size Factor = Total Weighted Issuers (iv) Divided by Total Number of Issuers (iii)						_____

\* Total number of breakpoints, as well as weights assigned to each, is subject to American Academy of Actuaries' recommendation and Working Group's review.

SVDO Bond Designation Category	Annual Statement Source	Non-CLOs/CBOs/CDOs Book / Adjusted Carrying Value	Factor	CLOs/CBOs/CDOs Book / Adjusted Carrying Value	Factor	Total RBC Requirement
<b>Long Term Bonds</b>						
(1) Exempt Obligations	C(1) AVR Default Component Column 1 Line A1	\$0	X 0.0000	XXX	XXX	\$0
(2.1) NAIC Designation Category 1.A	C(1) AVR Default Component Column 1 Line A2.1 C(2) AVR Default Component Column 1 Line A9.1	\$0	X 0.00158	\$0	X 0.00036	\$0
(2.2) NAIC Designation Category 1.B	C(1) AVR Default Component Column 1 Line A2.2 C(2) AVR Default Component Column 1 Line A9.2	\$0	X 0.00271	\$0	X 0.00048	\$0
(2.3) NAIC Designation Category 1.C	C(1) AVR Default Component Column 1 Line A2.3 C(2) AVR Default Component Column 1 Line A9.3	\$0	X 0.00419	\$0	X 0.00048	\$0
(2.4) NAIC Designation Category 1.D	C(1) AVR Default Component Column 1 Line A2.4 C(2) AVR Default Component Column 1 Line A9.4	\$0	X 0.00523	\$0	X 0.00048	\$0
(2.5) NAIC Designation Category 1.E	C(1) AVR Default Component Column 1 Line A2.5 C(2) AVR Default Component Column 1 Line A9.5	\$0	X 0.00657	\$0	X 0.00168	\$0
(2.6) NAIC Designation Category 1.F	C(1) AVR Default Component Column 1 Line A2.6 C(2) AVR Default Component Column 1 Line A9.6	\$0	X 0.00816	\$0	X 0.00168	\$0
(2.7) NAIC Designation Category 1.G	C(1) AVR Default Component Column 1 Line A2.7 C(2) AVR Default Component Column 1 Line A9.7	\$0	X 0.01016	\$0	X 0.01743	\$0
(2.8) Subtotal NAIC 1	Sum of Lines (2.1) through (2.7)	\$0		\$0		\$0
(3.1) NAIC Designation Category 2.A	C(1) AVR Default Component Column 1 Line A3.1 C(2) AVR Default Component Column 1 Line A10.1	\$0	X 0.01261	\$0	X 0.02175	\$0
(3.2) NAIC Designation Category 2.B	C(1) AVR Default Component Column 1 Line A3.2 C(2) AVR Default Component Column 1 Line A10.2	\$0	X 0.01523	\$0	X 0.03245	\$0
(3.3) NAIC Designation Category 2.C	C(1) AVR Default Component Column 1 Line A3.3 C(2) AVR Default Component Column 1 Line A10.3	\$0	X 0.02168	\$0	X 0.03281	\$0
(3.4) Subtotal NAIC 2	Sum of Lines (3.1) through (3.3)	\$0		\$0		\$0
(4.1) NAIC Designation Category 3.A	C(1) AVR Default Component Column 1 Line A4.1 C(2) AVR Default Component Column 1 Line A11.1	\$0	X 0.03151	\$0	X 0.15132	\$0
(4.2) NAIC Designation Category 3.B	C(1) AVR Default Component Column 1 Line A4.2 C(2) AVR Default Component Column 1 Line A11.2	\$0	X 0.04537	\$0	X 0.25156	\$0
(4.3) NAIC Designation Category 3.C	C(1) AVR Default Component Column 1 Line A4.3 C(2) AVR Default Component Column 1 Line A11.3	\$0	X 0.06017	\$0	X 0.27981	\$0
(4.4) Subtotal NAIC 3	Sum of Lines (4.1) through (4.3)	\$0		\$0		\$0
(5.1) NAIC Designation Category 4.A	C(1) AVR Default Component Column 1 Line A5.1 C(2) AVR Default Component Column 1 Line A12.1	\$0	X 0.07386	\$0	X 0.31298	\$0
(5.2) NAIC Designation Category 4.B	C(1) AVR Default Component Column 1 Line A5.2 C(2) AVR Default Component Column 1 Line A12.2	\$0	X 0.09535	\$0	X 0.42308	\$0
(5.3) NAIC Designation Category 4.C	C(1) AVR Default Component Column 1 Line A5.3 C(2) AVR Default Component Column 1 Line A12.3	\$0	X 0.12428	\$0	X 0.56875	\$0
(5.4) Subtotal NAIC 4	Sum of Lines (5.1) through (5.3)	\$0		\$0		\$0
(6.1) NAIC Designation Category 5.A	C(1) AVR Default Component Column 1 Line A6.1 C(2) AVR Default Component Column 1 Line A13.1	\$0	X 0.16942	\$0	X 0.57837	\$0
(6.2) NAIC Designation Category 5.B	C(1) AVR Default Component Column 1 Line A6.2 C(2) AVR Default Component Column 1 Line A13.2	\$0	X 0.23798	\$0	X 0.66346	\$0
(6.3) NAIC Designation Category 5.C	C(1) AVR Default Component Column 1 Line A6.3 C(2) AVR Default Component Column 1 Line A13.3	\$0	X 0.30000	\$0	X 0.85120	\$0
(6.4) Subtotal NAIC 5	Sum of Lines (6.1) through (6.3)	\$0		\$0		\$0
(7.1) NAIC 6	C(1) AVR Default Component Column 1 Line A7 C(2) AVR Default Component Column 1 Line A14	\$0	X 0.30000	\$0	X 0.92560	\$0
(7.2) CLO in NAIC Designation Category 2.C or below, with thin tranches (See Instruction)	C(2) AVR Default Component Column 1 Line A10.3, in part + Line A11.1, in part + Line A11.2, in part + Line A11.3, in part + Line A12.1, in part + Line A12.2, in part + Line A12.3, in part + Line A13.1, in part + Line A13.2, in part + Line A13.3, in part	XXX	XXX	\$0	X 0.00000	\$0
(8) Total Long-Term Bonds	Sum of Lines (1) + (2.8) + (3.4) + (4.4) + (5.4) + (6.4) + (7.1) + (7.2)	\$0		\$0		\$0
(Column (1) + Column (2) should equal Page 2 Column 3 Line 1 + Schedule DL Part 1 Column 6 Line 2009999999)						
<b>Short Term and Cash Equivalent Bonds</b>						
(9) Exempt Obligations	AVR Default Component Column 1 Line C1 + Schedule E, Part 2, Column 7, Line 0019999999	\$0	X 0.000	XXX	XXX	\$0
(10.1) NAIC Designation Category 1.A	AVR Default Component Column 1 Line C2.1 + Schedule E, Part 2, Footnote L000001A, Amount 1 - Schedule E, Part 2, Column 7, Line 0019999999	\$0	X 0.00158	XXX	XXX	\$0
(10.2) NAIC Designation Category 1.B	AVR Default Component Column 1 Line C2.2 + Schedule E, Part 2, Footnote L000001A, Amount 2	\$0	X 0.00271	XXX	XXX	\$0
(10.3) NAIC Designation Category 1.C	AVR Default Component Column 1 Line C2.3 + Schedule E, Part 2, Footnote L000001A, Amount 3	\$0	X 0.00419	XXX	XXX	\$0
(10.4) NAIC Designation Category 1.D	AVR Default Component Column 1 Line C2.4 + Schedule E, Part 2, Footnote L000001A, Amount 4	\$0	X 0.00523	XXX	XXX	\$0
(10.5) NAIC Designation Category 1.E	AVR Default Component Column 1 Line C2.5 + Schedule E, Part 2, Footnote L000001A, Amount 5	\$0	X 0.00657	XXX	XXX	\$0
(10.6) NAIC Designation Category 1.F	AVR Default Component Column 1 Line C2.6 + Schedule E, Part 2, Footnote L000001A, Amount 6	\$0	X 0.00816	XXX	XXX	\$0
(10.7) NAIC Designation Category 1.G	AVR Default Component Column 1 Line C2.7 + Schedule E, Part 2, Footnote L000001A, Amount 7	\$0	X 0.01016	XXX	XXX	\$0
(10.8) Subtotal NAIC 1	Sum of Lines (10.1) through (10.7)	\$0		\$0		\$0

=ROUND(MAX(0,D10)\*F10 + MAX(0,G10)\*J10,0)

(11.1)	NAIC Designation Category 2.A	AVR Default Component Column 1 Line C3.1 + Schedule E, Part 2, Footnote L000001B, Amount 1	\$0	X	0.01261	XXX	XXX	=	\$0
(11.2)	NAIC Designation Category 2.B	AVR Default Component Column 1 Line C3.2 + Schedule E, Part 2, Footnote L000001B, Amount 2	\$0	X	0.01523	XXX	XXX	=	\$0
(11.3)	NAIC Designation Category 2.C	AVR Default Component Column 1 Line C3.3 + Schedule E, Part 2, Footnote L000001B, Amount 3	\$0	X	0.02168	XXX	XXX	=	\$0
(11.4)	Subtotal NAIC 2	Sum of Lines (11.1) through (11.3)	\$0					=	\$0
(12.1)	NAIC Designation Category 3.A	AVR Default Component Column 1 Line C4.1 + Schedule E, Part 2, Footnote L000001C, Amount 1	\$0	X	0.03151	XXX	XXX	=	\$0
(12.2)	NAIC Designation Category 3.B	AVR Default Component Column 1 Line C4.2 + Schedule E, Part 2, Footnote L000001C, Amount 2	\$0	X	0.04537	XXX	XXX	=	\$0
(12.3)	NAIC Designation Category 3.C	AVR Default Component Column 1 Line C4.3 + Schedule E, Part 2, Footnote L000001C, Amount 3	\$0	X	0.06017	XXX	XXX	=	\$0
(12.4)	Subtotal NAIC 3	Sum of Lines (12.1) through (12.3)	\$0					=	\$0
(13.1)	NAIC Designation Category 4.A	AVR Default Component Column 1 Line C5.1 + Schedule E, Part 2, Footnote L000001D, Amount 1	\$0	X	0.07386	XXX	XXX	=	\$0
(13.2)	NAIC Designation Category 4.B	AVR Default Component Column 1 Line C5.2 + Schedule E, Part 2, Footnote L000001D, Amount 2	\$0	X	0.09535	XXX	XXX	=	\$0
(13.3)	NAIC Designation Category 4.C	AVR Default Component Column 1 Line C5.3 + Schedule E, Part 2, Footnote L000001D, Amount 3	\$0	X	0.12428	XXX	XXX	=	\$0
(13.4)	Subtotal NAIC 4	Sum of Lines (13.1) through (13.3)	\$0					=	\$0
(14.1)	NAIC Designation Category 5.A	AVR Default Component Column 1 Line C6.1 + Schedule E, Part 2, Footnote L000001E, Amount 1	\$0	X	0.16942	XXX	XXX	=	\$0
(14.2)	NAIC Designation Category 5.B	AVR Default Component Column 1 Line C6.2 + Schedule E, Part 2, Footnote L000001E, Amount 2	\$0	X	0.23798	XXX	XXX	=	\$0
(14.3)	NAIC Designation Category 5.C	AVR Default Component Column 1 Line C6.3 + Schedule E, Part 2, Footnote L000001E, Amount 3	\$0	X	0.30000	XXX	XXX	=	\$0
(14.4)	Subtotal NAIC 5	Sum of Lines (14.1) through (14.3)	\$0					=	\$0
(15)	NAIC 6	AVR Default Component Column 1 Line C7 Schedule E, Part 2, Footnote L000001F, Amount 1	\$0	X	0.30000	XXX	XXX	=	\$0
(16)	Total Short-Term and Cash Equivalent Bonds	Sum of Lines (9) + (10.8) + (11.4) + (12.4) + (13.4) + (14.4) + (15)	\$0			\$0		=	\$0
(17)	Total Long-Term and Short-Term Bonds (pre-MODCO/Funds Withheld)	Schedule DL Part 1 Column 6 Line 9509999999 + Schedule E Part 2 Column 7 Line 0509999999 Line (8) + (16)	\$0			\$0		=	\$0
(18)	Credit for Hedging	LR014 Hedged Asset Bond Schedule Column (13) Line (0399999)						=	\$0
(19)	Reduction in RBC for MODCO/Funds Withheld Reinsurance Ceded Agreements	LR045 Modco or Funds Withheld Reinsurance Ceded - Bonds C-1o Column (4) Line (9999999)						=	\$0
(20)	Increase in RBC for MODCO/Funds Withheld Reinsurance Assumed Agreements	LR046 Modco or Funds Withheld Reinsurance Assumed - Bonds C-1o Column (4) Line (9999999)						=	\$0
(21)	Total Long-Term and Short-Term Bonds (including MODCO/Funds Withheld and Credit for Hedging adjustments.)	Lines (17) - (18) - (19) + (20)	\$0			\$0		=	\$0
(22)	Non-exempt U.S. Government Agency Bonds	Schedule D Part 1 Section 1 and Section 2, Schedule DA Part 1 and Schedule E Part 2, in part†	\$0	X	0.00158			=	\$0

Non-CLO RBC Requirement

CLO RBC Requirement

(23)	RBC Requirements Subject to Size Factor	Company Records (See Instruction)	\$0			\$0		=	\$0
(24)	Number of Issuers	Company Records	0			0		=	
(25)	Size Factor for Bonds	2.4				1.0		=	
(26)	Bonds Subject to Size Factor after the Size Factor is Applied	Column (1) Line (23) x Column (1) Line (25) + Column (2) Line (23) X Column (2) Line (25)						=	\$0
(27)	Total Bonds	Line (22) + Line (26)						=	\$0

Column (1)  
 $=\text{ROUND}(\text{IF}(\text{D85}>0,(\text{MIN}(\text{D85},50)^{2.4}+\text{MIN}(\text{MAX}(0,\text{D85}-50),50)^{1.53}+\text{MIN}(\text{MAX}(0,\text{D85}-100),100)^{0.85}+\text{MIN}(\text{MAX}(0,\text{D85}-200),300)^{0.85}+\text{MAX}(0,(\text{D85}-500))^{0.82})/\text{D85},2.4),3)$   
 Column (2) = Default to "1", subject to changes as per the Academy's recommendation & Working Group discretion

† Only investments in-U.S. Government agency bonds previously reported in Lines (2.8) and (10.8), net of those included on Line (19), plus the portion of Line (20) attributable to ceding companies' Lines (2.8) and (10.8) should be included on Line (22). No other bonds should be included on this line. Exempt U.S. Government bonds shown on Lines (1) and (9) should not be included on Line (22). Refer to the bond section of the risk-based capital instructions for more clarification.

Denotes items that must be manually entered on the filing software.

**BONDS** **OPTION 2**

SVDO Bond Designation Category	Annual Statement Source	(1) Non-CLOs/CBOs/CDOs Book / Adjusted Carrying Value	(2) CLOs/CBOs/CDOs Book / Adjusted Carrying Value	(3) Factor	(4) Total RBC Requirement
<b>Long Term Bonds</b>					
(1) Exempt Obligations	C(1) AVR Default Component Column 1 Line A1	\$0	XXX	XXX	\$0
(2.1) NAIC Designation Category 1.A	C(1) AVR Default Component Column 1 Line A2.1 C(2) AVR Default Component Column 1 Line A9.1	\$0	\$0	X 0.00158	\$0 = \$0
(2.2) NAIC Designation Category 1.B	C(1) AVR Default Component Column 1 Line A2.2 C(2) AVR Default Component Column 1 Line A9.2	\$0	\$0	X 0.00271	\$0 = \$0
(2.3) NAIC Designation Category 1.C	C(1) AVR Default Component Column 1 Line A2.3 C(2) AVR Default Component Column 1 Line A9.3	\$0	\$0	X 0.00419	\$0 = \$0
(2.4) NAIC Designation Category 1.D	C(1) AVR Default Component Column 1 Line A2.4 C(2) AVR Default Component Column 1 Line A9.4	\$0	\$0	X 0.00523	\$0 = \$0
(2.5) NAIC Designation Category 1.E	C(1) AVR Default Component Column 1 Line A2.5 C(2) AVR Default Component Column 1 Line A9.5	\$0	\$0	X 0.00657	\$0 = \$0
(2.6) NAIC Designation Category 1.F	C(1) AVR Default Component Column 1 Line A2.6 C(2) AVR Default Component Column 1 Line A9.6	\$0	\$0	X 0.00816	\$0 = \$0
(2.7) NAIC Designation Category 1.G	C(1) AVR Default Component Column 1 Line A2.7 C(2) AVR Default Component Column 1 Line A9.7	\$0	\$0	X 0.01016	\$0 = \$0
(2.8) Subtotal NAIC 1	Sum of Lines (2.1) through (2.7)	\$0	\$0		\$0
(3.1) NAIC Designation Category 2.A	C(1) AVR Default Component Column 1 Line A3.1 C(2) AVR Default Component Column 1 Line A10.1	\$0	\$0	X 0.01261	\$0 = \$0
(3.2) NAIC Designation Category 2.B	C(1) AVR Default Component Column 1 Line A3.2 C(2) AVR Default Component Column 1 Line A10.2	\$0	\$0	X 0.01523	\$0 = \$0
(3.3) NAIC Designation Category 2.C	C(1) AVR Default Component Column 1 Line A3.3 C(2) AVR Default Component Column 1 Line A10.3	\$0	\$0	X 0.02168	\$0 = \$0
(3.4) Subtotal NAIC 2	Sum of Lines (3.1) through (3.3)	\$0	\$0		\$0
(4.1) NAIC Designation Category 3.A	C(1) AVR Default Component Column 1 Line A4.1 C(2) AVR Default Component Column 1 Line A11.1	\$0	\$0	X 0.03151	\$0 = \$0
(4.2) NAIC Designation Category 3.B	C(1) AVR Default Component Column 1 Line A4.2 C(2) AVR Default Component Column 1 Line A11.2	\$0	\$0	X 0.04537	\$0 = \$0
(4.3) NAIC Designation Category 3.C	C(1) AVR Default Component Column 1 Line A4.3 C(2) AVR Default Component Column 1 Line A11.3	\$0	\$0	X 0.06017	\$0 = \$0
(4.4) Subtotal NAIC 3	Sum of Lines (4.1) through (4.3)	\$0	\$0		\$0
(5.1) NAIC Designation Category 4.A	C(1) AVR Default Component Column 1 Line A5.1 C(2) AVR Default Component Column 1 Line A12.1	\$0	\$0	X 0.07386	\$0 = \$0
(5.2) NAIC Designation Category 4.B	C(1) AVR Default Component Column 1 Line A5.2 C(2) AVR Default Component Column 1 Line A12.2	\$0	\$0	X 0.09535	\$0 = \$0
(5.3) NAIC Designation Category 4.C	C(1) AVR Default Component Column 1 Line A5.3 C(2) AVR Default Component Column 1 Line A12.3	\$0	\$0	X 0.12428	\$0 = \$0
(5.4) Subtotal NAIC 4	Sum of Lines (5.1) through (5.3)	\$0	\$0		\$0
(6.1) NAIC Designation Category 5.A	C(1) AVR Default Component Column 1 Line A6.1 C(2) AVR Default Component Column 1 Line A13.1	\$0	\$0	X 0.16942	\$0 = \$0
(6.2) NAIC Designation Category 5.B	C(1) AVR Default Component Column 1 Line A6.2 C(2) AVR Default Component Column 1 Line A13.2	\$0	\$0	X 0.23798	\$0 = \$0
(6.3) NAIC Designation Category 5.C	C(1) AVR Default Component Column 1 Line A6.3 C(2) AVR Default Component Column 1 Line A13.3	\$0	\$0	X 0.30000	\$0 = \$0
(6.4) Subtotal NAIC 5	Sum of Lines (6.1) through (6.3)	\$0	\$0		\$0
(7.1) NAIC 6	C(1) AVR Default Component Column 1 Line A7 C(2) AVR Default Component Column 1 Line A14	\$0	\$0	X 0.30000	\$0 = \$0
(7.2) CLO in NAIC Designation Category 2.C or below, with thin tranches (See Instruction)	C(2) AVR Default Component Column 1 Line A10.3, in part + Line A11.1, in part + Line A11.2, in part + Line A11.3, in part + Line A12.1, in part + Line A12.2, in part + Line A12.3, in part + Line A13.1, in part + Line A13.2, in part + Line A13.3, in part	XXX	\$0	XXX	\$0 = \$0
(8) Total Long-Term Bonds	Sum of Lines (1) + (2.8) + (3.4) + (4.4) + (5.4) + (6.4) + (7.1) + (7.2)	\$0	\$0		\$0
(Column (1) + Column (2) should equal Page 2 Column 3 Line 1 + Schedule DL Part 1 Column 6 Line 2009999999)					
<b>Short Term and Cash Equivalent Bonds</b>					
(9) Exempt Obligations	AVR Default Component Column 1 Line C1 + Schedule E, Part 2, Column 7, Line 0019999999	\$0	XXX	XXX	\$0 = \$0
(10.1) NAIC Designation Category 1.A	AVR Default Component Column 1 Line C2.1 + Schedule E, Part 2, Footnote L000001A, Amount 1 - Schedule E, Part 2, Column 7, Line 0019999999	\$0	XXX	XXX	\$0 = \$0
(10.2) NAIC Designation Category 1.B	AVR Default Component Column 1 Line C2.2 + Schedule E, Part 2, Footnote L000001A, Amount 2	\$0	XXX	XXX	\$0 = \$0
(10.3) NAIC Designation Category 1.C	AVR Default Component Column 1 Line C2.3 + Schedule E, Part 2, Footnote L000001A, Amount 3	\$0	XXX	XXX	\$0 = \$0
(10.4) NAIC Designation Category 1.D	AVR Default Component Column 1 Line C2.4 + Schedule E, Part 2, Footnote L000001A, Amount 4	\$0	XXX	XXX	\$0 = \$0
(10.5) NAIC Designation Category 1.E	AVR Default Component Column 1 Line C2.5 + Schedule E, Part 2, Footnote L000001A, Amount 5	\$0	XXX	XXX	\$0 = \$0
(10.6) NAIC Designation Category 1.F	AVR Default Component Column 1 Line C2.6 + Schedule E, Part 2, Footnote L000001A, Amount 6	\$0	XXX	XXX	\$0 = \$0
(10.7) NAIC Designation Category 1.G	AVR Default Component Column 1 Line C2.7 + Schedule E, Part 2, Footnote L000001A, Amount 7	\$0	XXX	XXX	\$0 = \$0
(10.8) Subtotal NAIC 1	Sum of Lines (10.1) through (10.7)	\$0	\$0		\$0

=ROUND(MAX(0,D10)\*F10 + MAX(0,G10)\*J10,0)

(11.1)	NAIC Designation Category 2.A	AVR Default Component Column 1 Line C3.1 + Schedule E, Part 2, Footnote L000001B, Amount 1	\$0	X	0.01261	XXX	XXX	=	\$0
(11.2)	NAIC Designation Category 2.B	AVR Default Component Column 1 Line C3.2 + Schedule E, Part 2, Footnote L000001B, Amount 2	\$0	X	0.01523	XXX	XXX	=	\$0
(11.3)	NAIC Designation Category 2.C	AVR Default Component Column 1 Line C3.3 + Schedule E, Part 2, Footnote L000001B, Amount 3	\$0	X	0.02168	XXX	XXX	=	\$0
(11.4)	Subtotal NAIC 2	Sum of Lines (11.1) through (11.3)	\$0					=	\$0
(12.1)	NAIC Designation Category 3.A	AVR Default Component Column 1 Line C4.1 + Schedule E, Part 2, Footnote L000001C, Amount 1	\$0	X	0.03151	XXX	XXX	=	\$0
(12.2)	NAIC Designation Category 3.B	AVR Default Component Column 1 Line C4.2 + Schedule E, Part 2, Footnote L000001C, Amount 2	\$0	X	0.04537	XXX	XXX	=	\$0
(12.3)	NAIC Designation Category 3.C	AVR Default Component Column 1 Line C4.3 + Schedule E, Part 2, Footnote L000001C, Amount 3	\$0	X	0.06017	XXX	XXX	=	\$0
(12.4)	Subtotal NAIC 3	Sum of Lines (12.1) through (12.3)	\$0					=	\$0
(13.1)	NAIC Designation Category 4.A	AVR Default Component Column 1 Line C5.1 + Schedule E, Part 2, Footnote L000001D, Amount 1	\$0	X	0.07386	XXX	XXX	=	\$0
(13.2)	NAIC Designation Category 4.B	AVR Default Component Column 1 Line C5.2 + Schedule E, Part 2, Footnote L000001D, Amount 2	\$0	X	0.09535	XXX	XXX	=	\$0
(13.3)	NAIC Designation Category 4.C	AVR Default Component Column 1 Line C5.3 + Schedule E, Part 2, Footnote L000001D, Amount 3	\$0	X	0.12428	XXX	XXX	=	\$0
(13.4)	Subtotal NAIC 4	Sum of Lines (13.1) through (13.3)	\$0					=	\$0
(14.1)	NAIC Designation Category 5.A	AVR Default Component Column 1 Line C6.1 + Schedule E, Part 2, Footnote L000001E, Amount 1	\$0	X	0.16942	XXX	XXX	=	\$0
(14.2)	NAIC Designation Category 5.B	AVR Default Component Column 1 Line C6.2 + Schedule E, Part 2, Footnote L000001E, Amount 2	\$0	X	0.23798	XXX	XXX	=	\$0
(14.3)	NAIC Designation Category 5.C	AVR Default Component Column 1 Line C6.3 + Schedule E, Part 2, Footnote L000001E, Amount 3	\$0	X	0.30000	XXX	XXX	=	\$0
(14.4)	Subtotal NAIC 5	Sum of Lines (14.1) through (14.3)	\$0					=	\$0
(15)	NAIC 6	AVR Default Component Column 1 Line C7 Schedule E, Part 2, Footnote L000001F, Amount 1	\$0	X	0.30000	XXX	XXX	=	\$0
(16)	Total Short-Term and Cash Equivalent Bonds	Sum of Lines (9) + (10.8) + (11.4) + (12.4) + (13.4) + (14.4) + (15)	\$0			\$0		=	\$0
(17)	Total Long-Term and Short-Term Bonds (pre-MODCO/Funds Withheld)	Schedule DL Part 1 Column 6 Line 9509999999 + Schedule E Part 2 Column 7 Line 0509999999 ) Line (8) + (16)	\$0			\$0		=	\$0
(18)	Credit for Hedging	LR014 Hedged Asset Bond Schedule Column (13) Line (0399999)						=	\$0
(19)	Reduction in RBC for MODCO/Funds Withheld Reinsurance Ceded Agreements	LR045 Modco or Funds Withheld Reinsurance Ceded - Bonds C-1o Column (4) Line (9999999)						=	\$0
(20)	Increase in RBC for MODCO/Funds Withheld Reinsurance Assumed Agreements	LR046 Modco or Funds Withheld Reinsurance Assumed - Bonds C-1o Column (4) Line (9999999)						=	\$0
(21)	Total Long-Term and Short-Term Bonds (including MODCO/Funds Withheld and Credit for Hedging adjustments.)	Lines (17) - (18) - (19) + (20)	\$0			\$0		=	\$0
(22)	Non-exempt U.S. Government Agency Bonds	Schedule D Part 1 Section 1 and Section 2, Schedule DA Part 1 and Schedule E Part 2, in part†	\$0	X	0.00158			=	\$0

Non-CLO RBC Requirement
\$0
0
2.4

CLO RBC Requirement
\$0
0
1.0

Column (1)  
 $=\text{ROUND}(\text{IF}(\text{D85}>0,(\text{MIN}(\text{D85},50)^*2.4+\text{MIN}(\text{MAX}(0,\text{D85}-50),50)^*1.53+\text{MIN}(\text{MAX}(0,\text{D85}-100),100)^*0.85+\text{MIN}(\text{MAX}(0,\text{D85}-200),300)^*0.85+\text{MAX}(0,(\text{D85}-500))^*0.82))/\text{D85},2.4),3)$

Column (2) = Default to "1", subject to changes as per the Academy's recommendation & Working Group discretion

$=\text{ROUND}(\text{D84}^* \text{D86} + \text{G84}^* \text{G86}, 0)$

† Only investments in-U.S. Government agency bonds previously reported in Lines (2.8) and (10.8), net of those included on Line (19), plus the portion of Line (20) attributable to ceding companies' Lines (2.8) and (10.8) should be included on Line (22). No other bonds should be included on this line. Exempt U.S. Government bonds shown on Lines (1) and (9) should not be included on Line (22). Refer to the bond section of the risk-based capital instructions for more clarification.

Denotes items that must be manually entered on the filing software.



June 5, 2026

VIA EMAIL

Risk-Based Capital Investment Risk and Evaluation (E) Working Group  
National Association of Insurance Commissioners  
1100 Walnut Street, Suite 1500  
Kansas City, MO 64106

**Re: Comments on NAIC RBC Proposal 2026-12-IRE – CLO Factor**

Dear Members of the Working Group:

The Alternative Credit Council (“ACC”)<sup>1</sup> and the LSTA, Inc. (“LSTA”)<sup>2</sup> submit these comments on Proposal 2026-12-IRE, which would incorporate modeled C-1 factors for collateralized loan obligations (“CLOs”), collateralized bond obligations (“CBOs”), and collateralized debt obligations (“CDOs”) presented by the American Academy of Actuaries C-1 Subcommittee (the “Academy”) on March 2, 2026, into the Life and Fraternal RBC Blanks, Instructions, and Formula.

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<sup>1</sup> The Alternative Credit Council (ACC) is a global body that represents asset management firms in the private credit and direct lending space. It currently represents 250 members that manage over US\$2 trillion of private credit assets. The ACC is an affiliate of AIMA and is governed by its own board, which ultimately reports to the AIMA Council. ACC members provide an important source of funding to the economy. They provide finance to mid-market corporates, SMEs, commercial and residential real estate developments, infrastructure, and the trade and receivables business. The ACC’s core objectives are to provide guidance on policy and regulatory matters, support wider advocacy and educational efforts and generate industry research to strengthen the sector’s sustainability and wider economic and financial benefits. Alternative credit, private debt or direct lending funds have grown substantially in recent years and are becoming a key segment of the asset management industry. The ACC seeks to explain the value of private credit by highlighting the sector’s wider economic and financial stability benefits.

<sup>2</sup> LSTA, Inc. is a not-for-profit trade association that has been the leading advocate for the U.S. corporate lending market since 1995. LSTA’s mission is to promote a fair, orderly, efficient and growing corporate loan market while advancing and balancing the interests of all market participants. Our 600+ member institutions include commercial banks (ranging in size from GSIBs to community banks), investment banks, broker-dealers, asset managers, and institutional lenders, as well as law firms and market service providers. LSTA undertakes a wide variety of activities in pursuit of its mission, including advocacy, thought leadership, data analytics, education, and standardization of documents, practices and operations. LSTA’s offerings are designed for the voluntary use by our members and benefit from LSTA’s ability to build a consensus of diverse stakeholders. For more information, visit [www.lsta.org](http://www.lsta.org).

These comments build on the joint comment letter submitted by the ACC and LSTA to the Working Group on April 16, 2026 (the “April Letter”).<sup>3</sup> In the April Letter, ACC and LSTA proposed a sequenced implementation framework as a principled compromise: implement the Academy’s BSL CLO C-1 factors for U.S. broadly syndicated loan (“BSL”) CLOs at year-end 2026, continue to refine key modeling assumptions through the Academy’s ongoing governance process, and conduct a data-driven, asset-specific analysis of middle-market (“MM”) CLOs in time to support year-end 2027 implementation. That compromise position reflects a genuine effort to advance the Working Group’s 2026 implementation objective while preserving the analytical integrity that the NAIC’s RBC Model Governance principles require.

On the MM CLO data question specifically, the ACC and LSTA have confirmed that credit rating agencies with significant coverage of the MM CLO market are willing to share the data necessary to support a dedicated Academy modeling workstream. It is our understanding that the data are sufficient for the Academy to apply its current modeling methodology to MM CLOs without delay. The nine-month timeline the Academy has indicated for completing a dedicated MM CLO model is therefore credible and achievable. There is no data gap that would preclude beginning this work immediately upon direction from the Working Group. A one-year period to conduct the appropriate analysis would also provide insurance companies with sufficient time to analyze their MM CLO investments and prepare for any significant policy changes. We note that the NAIC has wisely made that decision with respect to collateral loans. Given that, until recently, it was not clear that the Academy’s BSL CLO analysis might also apply to MM CLOs, we believe that, even if no further analysis is performed, at least a one-year delay in the effective date for MM CLOs should also be considered.

These comments address additional issues raised by Proposal 2026-12-IRE that were not fully addressed in the April Letter. Specifically, the proposal appears to raise questions regarding the treatment of CBOs and CDOs under the same or related modeled-factor framework and presents two implementation options that differ in whether a tranche thickness surcharge applies. We address five topics: (I) our support for the Academy’s comparable-attributes model over the Structured Securities Group (“SSG”) approach; (II) our preference for Option 1 (rating only) over Option 2 (rating and tranche thickness); (III) our recommendation for a sequenced, data-driven implementation that covers MM CLOs, CBOs, and CDOs; (IV) concerns regarding proposals to floor capital charges at current corporate bond levels; and (V) concerns regarding the Portfolio Adjustment Factor framework and its knock-on effects on non-CLO bonds.

Our position has been consistent throughout this process: implement the Academy’s well-designed BSL CLO factors at year-end 2026, continue to refine key modeling assumptions through the Academy’s governance process, and complete data-driven, asset-specific analyses for MM CLOs before applying any modeled factors to those vehicles. The data needed to support the MM CLO workstream is available, credit rating agencies have indicated willingness to provide it, and the Academy has confirmed the work is achievable

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<sup>3</sup> Joint Comment Letter of LSTA, Inc. and the Alternative Credit Council to the Risk-Based Capital Investment Risk and Evaluation (E) Working Group, Re: Comments on the American Academy of Actuaries’ March 2, 2026, Presentation – C-1 Subcommittee Update on CLO C-1 Factors Modeling (April 16, 2026).

within a nine-month timeline. There is no reason to defer beginning that workstream. The same analysis should apply to CBOs and CDOs.

The ACC urges the Working Group to: (i) adopt Option 1 (rating only) for year-end 2026 implementation; (ii) implement the Academy's BSL CLO factors for U.S. BSL CLOs at year-end 2026; (iii) maintain current corporate bond factors for MM CLOs, CBOs, and CDOs pending dedicated Academy analyses; (iv) direct the Academy to begin the MM CLO modeling workstream immediately using available credit rating agency data, targeting year-end 2027 implementation; (v) require asset-specific analyses before extending any modeled factors to CBOs and CDOs; (vi) ensure that any further model refinements, including assumption updates, are addressed through the model itself rather than through administrative floors or other non-modeled adjustments; and (vii) refine the PAF framework before adoption to preserve cross-asset portfolio diversification benefits and prevent unintended capital increases on non-CLO bonds arising from the proposed CLO segmentation. This approach advances the 2026 milestone, preserves the data-driven integrity that distinguishes the Academy's framework from its predecessors, and establishes the right precedent for every ABS asset class the NAIC addresses going forward.

In the appendix, we provide additional information and reasoning for these seven points, and we would be glad to discuss them in more detail with you. If you have any questions, please reach out to Joe Engelhard, Head of Private Credit & Asset Management Policy, Americas, at ACC, at [jengelhard@aima.org](mailto:jengelhard@aima.org), or to Andrew Berlin, Director of Policy Research at LSTA, at [aberlin@lsta.org](mailto:aberlin@lsta.org).

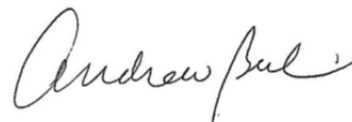
Sincerely,

ALTERNATIVE INVESTMENT  
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## Appendix

### **I. The Academy model is the analytically sound foundation for CLO RBC**

The Academy's stochastic comparable-attributes framework provides a more risk-sensitive basis for standardized CLO factors than a parity-based approach that constrains tranche-level outcomes to collateral-pool averages. The Academy model runs a large-scale stochastic simulation using 10,000 equally weighted economic scenarios, generating robust default vectors for underlying loans that are then processed through detailed waterfall mechanics to simulate tranche performance. It measures tail risk using a Conditional Tail Expectation (CTE-90) approach, averaging losses across the worst 10% of outcomes. The SSG approach, by contrast, relies on only 10 deterministic scenarios that are artificially probability-weighted and back-solved to enforce equivalence between a CLO's vertical-slice RBC charge and the weighted-average charges of the underlying loan pool. That construction limits visibility into genuine tail risk and can mask tranche-specific sensitivities by scaling results to loan-pool averages.

The Academy model also appropriately reflects the structural protections that distinguish CLO tranches from their underlying collateral. Through overcollateralization, coverage tests, waterfall structures, and credit enhancement, senior CLO tranches have demonstrated near-zero historical loss rates even through periods of significant collateral stress. Moody's Investors Service has reported zero defaults on AAA and AA CLO tranches across all vintages from 1993 through 2023. Enforcing RBC parity with the collateral pool, as the SSG approach does, misrepresents this structural protection and systematically overstates required capital. We support the Academy model as the appropriate foundation for CLO C-1 factors and urges the Working Group not to revert to the SSG approach or any uniform fallback percentage.

### **II. Option 1 (rating only) is preferable to Option 2 (rating and tranche thickness)**

Proposal 2026-12-IRE presents two implementation options. Option 1 assigns C-1 factors based on rating designation alone. Option 2 adds a surcharge for thin debt tranches, defined as those with tranche thickness at or below 4%, with a tranche-thickness adjustment reflected in higher factors for thin tranches rated Baa3/NAIC 2.C and below. The ACC and LSTA support Option 1 for the following reasons.

#### **The thin tranche surcharge has not been validated for assets beyond BSL CLOs.**

The Academy has stated publicly that it has not yet completed the data analysis necessary to justify applying the thin tranche surcharge to MM CLOs. If Option 2 is adopted on a universal basis, a surcharge calibrated from BSL CLO data would be applied to MM CLOs, CBOs, and CDOs without any empirical support for those asset classes. That outcome is inconsistent with the data-driven principles that the Working Group has committed to apply throughout this process and is directly contrary to Principles 5 (objectivity), 6 (accuracy), and 10 (data-driven and evidence-based) of the recently approved RBC Model Governance standards.

**The surcharge is analytically incoherent when applied to CBOs and CDOs.**

The proposal extends modeled BSL CLO factors to CBOs and CDOs. Unlike BSL CLOs, CBOs and CDOs can hold a wide variety of underlying assets, including high-yield bonds, structured credit, leveraged loans, project finance instruments, and other asset types. The relationship between tranche thickness and loss severity, which is the premise of the thin tranche surcharge, depends entirely on the composition and behavior of the underlying collateral pool. A 4% thickness threshold calibrated from BSL CLO data, where collateral characteristics and structural protections are well understood and relatively uniform, has no principled application to a CBO or CDO whose underlying assets may be fundamentally different. Applying Option 2 to CBOs and CDOs would impose a surcharge with no empirical foundation for those vehicles. The same data-driven standard that the Academy applied to BSL CLOs must be applied to CBOs and CDOs before any comparable-attributes surcharge can be justified for them.

**A structural incongruity in Option 2 illustrates the risk of under-analyzed implementation.**

Proposal 2026-12-IRE does not apply the thin tranche surcharge to NAIC 6 CLOs, because the Academy did not propose a modeled factor for that designation due to limited sample data. NAIC staff instead interpolated the NAIC 6 factor as the arithmetic mean of 1.0 and the NAIC 5.C factor. The consequence is that under Option 2, a CLO in NAIC 6 with a thin tranche would carry a lower total capital charge than a comparable CLO in NAIC 5.C, because the 11.77% surcharge applies to NAIC 5.C but not to NAIC 6. This incongruity is a direct result of applying a layered surcharge structure to a factor set that was not designed to accommodate it across the full designation range. It is precisely the kind of unintended consequence that results when analytical components are assembled without sufficient validation of how they interact. Option 1 avoids this problem entirely.

**Iowa's proposal to refer the tranche thickness question to the CRP Working Group confirms that Option 2 requires further deliberation.**

The Working Group has received a proposal from Iowa to refer the tranche thickness question to the Credit Rating Provider (E) Working Group or an equivalent body for further review. That proposal reflects a recognition that the analytical basis for Option 2 warrants additional scrutiny before adoption. Adopting Option 1 now, with the rating-only factors calibrated from the Academy's rigorous BSL CLO analysis, allows the Working Group to implement a well-grounded framework for year-end 2026 while preserving the opportunity to revisit the tranche thickness question with appropriate data support across all covered asset classes.

**III. MM CLOs, CBOs, and CDOs require separate, data-driven validation before modeled factors are applied**

Proposal 2026-12-IRE applies the Academy's modeled C-1 factors for BSL CLOs to all CLOs, including MM CLOs, and also extends the framework to CBOs and CDOs. The Academy confirmed at a public RBC IRE meeting that MM CLO data was excluded from its analysis. No analysis of CBO or CDO collateral characteristics, structural features, or loss history has been presented to the Working Group. The ACC and LSTA urge the Working Group to distinguish among these asset classes and to require asset-specific, data-driven analysis before applying modeled factors to any of them.

### **BSL and MM CLOs differ in ways that are material to RBC calibration.**

MM CLOs differ from BSL CLOs across every dimension that drives tail-risk calibration:

- **Collateral composition.** MM CLO portfolios consist primarily of loans to middle-market borrowers that are typically illiquid, lack broadly available market pricing, and are originated through bilateral or club processes rather than broadly syndicated across institutional investors.
- **Default and recovery dynamics.** Middle-market borrowers exhibit different default frequency and loss-given-default profiles than the large-cap corporate borrowers that dominate BSL portfolios. Recovery rates in middle-market lending are influenced by its unique patterns that often differ from BSL CLOs, including lender control, covenant structure, leverage levels, and collateral access, none of which have been calibrated for MM CLOs as the Academy's analysis only included BSL CLOs.
- **Structural protections and tranche thickness.** MM CLO tranche thickness distributions differ from those in BSL CLOs, and structural protections, including overcollateralization triggers and manager flexibility, operate differently across the two structures.
- **Performance behavior.** Historical loss data for MM CLO tranches reflects a pattern distinct from BSL CLO tranches due to the above factors, and that distinction is directly relevant to CTE-90 calibration.

Applying BSL CLO factors to MM CLOs does not produce a conservative RBC outcome; it produces an uncalibrated one. The resulting charges may be too high or too low for particular tranches without a model calibrated to MM CLO data.

### **The data needed for a dedicated MM CLO model is available and ready.**

As noted above, credit rating agencies with significant MM CLO coverage have indicated willingness to share the data needed to support the Academy's modeling workstream, and we understand that data to be sufficient for the Academy to apply its current methodology without modification. S&P rates approximately two-thirds of the MM CLO market on a dollar basis, making it a primary and sufficient data source. The April Letter addressed at length the concern raised by some parties regarding whether S&P's rating methodology accounts for loss-given-default; as demonstrated there, S&P's CLO rating framework incorporates both scenario default rates derived from Monte Carlo simulation and break-even default rates generated through cashflow modeling with asset recovery rate stresses, fully incorporating LGD considerations. Data availability is not an obstacle. The only question is whether the Working Group directs the Academy to begin the work.

### **CBOs and CDOs present an even stronger case for asset-specific analysis.**

CBOs and CDOs encompass a range of vehicles whose underlying collateral can include high-yield bonds, structured products, leveraged loans, infrastructure debt, and other instruments with distinct default, recovery, correlation, and liquidity characteristics. The key drivers of CLO tranche performance, including obligor diversification across large-cap corporate borrowers, standardized loan documentation, secondary market liquidity, and broadly available pricing data, may not be present or may operate differently in CBO and CDO structures. Using factors derived from BSL CLO data as a default for CBOs and

CDOs would apply a model beyond the boundaries of its empirical foundation in ways that are even more pronounced than the MM CLO issue.

The ACC and LSTA strongly urge the Working Group not to extend modeled factors for BSL CLOs to CBOs and CDOs without first completing asset-specific analyses using appropriate collateral data for each vehicle type. The NAIC's commitment to a data-driven modeling process has no meaning if it applies only to the first asset class addressed and not to those that follow.

**The sequenced approach advances the 2026 milestone while preserving analytical integrity.**

BSL CLOs account for approximately 83% of insurers' total CLO holdings. Implementing BSL CLO Option 1 factors at year-end 2026 captures the preponderance of insurer exposure and achieves the Working Group's milestone of unique modeled factors, while preserving the analytical integrity of the MM CLO, CBO, and CDO determinations. The ACC and LSTA recommend that the Working Group:

- Implement the Academy's BSL CLO C-1 factors under Option 1 for U.S. BSL CLOs effective year-end 2026.
- Continue to apply current corporate bond C-1 factors to MM CLOs, CBOs, and CDOs at year-end 2026, pending separately calibrated models for those asset classes.
- Direct the Academy to begin immediately a dedicated MM CLO modeling workstream using available credit rating agency data, targeting year-end 2027 implementation, with the BSL CLO rating-only factors applied to MM CLOs beginning year-end 2027 if the workstream is not completed within that timeline.
- Require asset-specific data-driven analyses for CBOs and CDOs before any modeled factors are applied to those vehicles.

This approach is consistent with Principles 4 (equal capital for equal risk), 5 (objectivity), 6 (accuracy), 9 (transparency), and 10 (data-driven and evidence-based) of the recently approved RBC Model Governance principles.

**The sequenced approach establishes the right precedent for future ABS modeling workstreams.**

The Working Group's approach to CLO RBC will serve as a template as the NAIC addresses other ABS asset classes. The RBC framework already distinguishes between similarly rated assets when their underlying risk characteristics differ; residential and commercial mortgages are treated separately, as are different categories of real estate exposure, precisely because identical credit ratings do not imply identical risk profiles. The same principle applies across CLO, CBO, and CDO categories and will apply with equal force to other structured products the NAIC considers in the future. Extending BSL CLO factors to MM CLOs, CBOs, and CDOs without independent analysis would establish a precedent that factors developed for one asset class can be applied by default to structurally distinct assets, undermining the integrity of every modeling workstream that follows.

#### **IV. Capital charges should reflect modeled risk, not be floored at current levels**

The ACC and LSTA understand that some regulators have proposed flooring CLO capital charges at current corporate bond C-1 levels, such that modeled factors could increase but not decrease charges relative to the current rating-based framework. The ACC and LSTA respectfully oppose this approach.

The NAIC has invested significant resources in developing a rigorous, stochastically grounded model precisely because the current rating-based framework does not accurately reflect the risk characteristics of CLO tranches. If the modeled factors produce capital charges that differ from current charges, whether higher or lower, those differences reflect the model's more accurate assessment of actual risk. A floor that prevents charges from decreasing, while allowing them to increase, does not produce equal capital for equal risk; it produces a one-sided asymmetry that systematically overstates required capital for tranches where structural protections are most effective. This outcome is directly contrary to Principle 4 of the RBC Model Governance standards. Moreover, applying an identical floor to BSL CLOs, MM CLOs, CBOs, and CDOs alike would compound the errors inherent in treating those asset classes as equivalent, since the current corporate bond factor against which the floor would be measured was itself not calibrated to any of them.

If regulators have concerns about specific model assumptions, including correlation assumptions for underlying loans, those concerns should be addressed through the model's assumption-setting process, with appropriate data support and public comment, not through an administrative floor applied after the fact. The Academy has indicated it will be publishing comprehensive model documentation in advance of the June 23rd Working Group meeting. The ACC and LSTA encourage the Working Group to review that documentation fully before finalizing any implementation decision, and to address any outstanding assumption questions through the model rather than through non-modeled adjustments.

#### **V. The Portfolio Adjustment Factor framework requires refinement to recognize cross-asset diversification**

We appreciate the Working Group's consideration of the Academy's Portfolio Adjustment Factor (PAF) framework. Our members have concerns about several features of the proposed CLO segmentation that warrant attention before adoption. One concern of particular note is that the current proposal does not account for diversification across asset classes.

The PAF rewards diversification within an asset class but pulling CLO exposures out of the bond portfolio leaves the framework unable to credit the risk reduction that comes from holding asset classes whose losses move independently. When asset classes do not deteriorate in tandem, weakness in one is offset by stability in others, so a portfolio spread across uncorrelated classes carries smaller tail losses than one concentrated in a single class. By calibrating the CLO adjustment in isolation, the proposed segmentation overlooks that benefit and treats an insurer's diversification as though it stopped at the boundary of each asset class.

In order to take the necessary time to address this concern, as an interim measure, we recommend deferring the CLO PAF for one year. This would allow sufficient time for further

analysis and avoid locking in a framework that systematically undervalues cross-asset diversification while longer-term solutions are developed. We would welcome the opportunity to work with the Working Group and the Academy on an approach that preserves this benefit within the existing RBC structure.



June 5, 2026

**Mr. Philip Barlow, Chair**

Risk-Based Capital Investment Risk and Evaluation (E) Working Group  
National Association of Insurance Commissioners  
1100 Walnut Street, Suite 1000  
Kansas City, MO 64106-2197

Re: Proposal 2026-12-IRE CLO Debt and Portfolio Adjustment Factors

*Submitted Electronically*

Dear Chair Barlow:

The American Council of Life Insurers (“ACLI”) appreciates the opportunity to comment on the exposures related to proposed C-1 factors for collateralized loan obligation (“CLO”) debt tranches and the associated portfolio adjustment factor (“PAF”) framework.

ACLI has consistently supported the American Academy of Actuaries’ (“Academy”) work to develop a data-driven, analytically grounded framework to calibrate CLO C-1 factors anchored to the existing bond methodology. A central objective of this effort is to advance an RBC framework that ensures capital requirements are consistently aligned with underlying economic tail risk across asset classes. We commend the Risk-Based Capital Investment Risk and Evaluation (E) Working Group (“Working Group”), NAIC staff, and the Academy for the substantial progress reflected in these exposures.

ACLI supports the overall direction of the proposal and the RBC Investment Risk and Evaluation (E) Working Group’s (“Working Group”) apparent intention, based on recent discussions at Working Group meetings, to adopt C-1 factors derived from the Academy model effective for year-end 2026 as discussed below. As noted in ACLI’s previous letter, certain modeling considerations identified by the Academy that could materially affect individual CLO tranche factors were not incorporated into the current proposal due to timing. ACLI recommends that the Working Group prioritize evaluation of these considerations and update the CLO factors for year-end 2027, as this work will help establish the analytical foundation for the development of factors for other structured securities.

ACLI supports this direction as an important step toward modernizing the structured securities capital framework. In particular:

- ACLI appreciates the Working Group’s broader structured securities roadmap and supports efforts to continue advancing that work. Once revisions to the CLO factors are finalized and the focus begins to expand to other asset-backed securities, ACLI offers the suggestions below in the spirit of supporting a practical and constructive path toward the roadmap’s overall objectives;

**American Council of Life Insurers** | 300 New Jersey Avenue, NW, 10th Floor | Washington, DC 20001

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The American Council of Life Insurers (ACLI) is the leading trade association driving public policy and advocacy on behalf of the life insurance industry. 90 million American families rely on the life insurance industry for financial protection and retirement security. ACLI’s member companies are dedicated to protecting consumers’ financial wellbeing through life insurance, annuities, retirement plans, long-term care insurance, disability income insurance, reinsurance, and dental, vision and other supplemental benefits. ACLI’s 275 member companies represent 94 percent of industry assets in the United States.

- ACLI supports adoption of C-1 factors derived directly from the Academy model, which reflects a rigorous, data-driven framework grounded in stochastic modeling and a tail-risk measure calibrated to the underlying economics of CLO tranches;
- The Academy’s approach represents a meaningful advancement in aligning CLO capital with the existing C-1 bond framework through comparable attributes, improving analytical consistency and comparability across asset classes;
- Moving to model-derived factors enhances the ability of the RBC framework to reflect relative risk across tranches and structures in a transparent and empirically grounded manner;
- Separate validation for middle market (“MM”) CLOs before applying new RBC factors would preserve the integrity of the model-based approach by ensuring any MM CLO calibration is supported by asset-specific data, assumptions, and analysis. Inferring a hypothesis for MM CLOs from the broadly syndicated loan (“BSL”) analysis, though informed, is not data driven analysis. MM CLO experience data is available and should be analyzed to either accept or reject such hypothesis; and
- ACLI supports moving forward with capital adoption on this timeline to provide regulatory certainty, while emphasizing the importance of continued model refinement.

ACLI believes this approach appropriately balances timely implementation with a commitment to longer-term model enhancement and validation. At the same time, it is important that the integrity of the model-based approach be preserved.

In that respect, ACLI understands the concern that the C-1 factors produced by the Academy model for the senior tranches are less than the factors for equivalently rated bonds and does not believe it is appropriate to apply a floor to the C-1 factors produced by the Academy model. The Academy framework is explicitly designed to produce risk-based results grounded in empirical data and modeled tail outcomes. Furthermore, imposing a floor would override the model’s calibration, effectively replacing measured risk with a judgmental overlay and producing outcomes where assets with lower modeled tail risk are nevertheless subject to higher capital requirements. More fundamentally, introducing a floor risks undermining confidence in the model-based approach as a whole, particularly at the point of initial adoption.

### **Treatment of Complexity**

ACLI acknowledges that structured assets such as CLOs may, in certain cases, generate excess spread relative to equivalently rated corporate bonds, reflecting structural complexity, liquidity characteristics, and investor compensation for those risks.

However, ACLI believes it is not appropriate to address this issue through a floor on C-1 factors, given that:

- Excess spread is not itself a measure of tail loss risk, which is the basis for C-1 calibration in the RBC framework;
- Applying a floor to C-1 factors as a proxy for excess spread would conflate risk measurement with market pricing considerations; and

- Such an approach would depart from the Academy model's objective of producing risk-consistent capital requirements based on modeled outcomes.

If regulators believe additional consideration of excess spread or structural complexity is warranted, ACLI recommends that this be addressed through targeted, transparent analytical work, rather than through adjustments (such as floors) that override the model.

Potential avenues for further work could include:

- Evaluating whether and how complexity or spread-related considerations should be incorporated into the modeling framework itself;
- Assessing whether these considerations are already implicitly captured in the model through assumptions such as recoveries, reinvestment dynamics, or correlation; or
- Considering separate and explicitly designed adjustments, if needed, that are analytically grounded and consistently applied.

This approach maintains the integrity of the model-based framework while allowing for thoughtful consideration of any incremental factors not yet fully captured.

### **MM CLOs Require Separate Validation before New RBC Factors Are Applied**

ACLI recognizes the significant progress reflected in the Academy's modeling framework and supports timely adoption of model-derived C-1 factors for BSL CLOs for year-end 2026. At the same time, ACLI believes that capital outcomes should be aligned with the scope of the underlying analysis used to produce those outcomes to be consistent with a data-driven RBC framework. The Academy's current calibration is based on BSL CLO data, structures, and assumptions and therefore reflects the risk characteristics of that segment. Extending those results to MM CLOs without comparable analysis would involve applying the model beyond the dataset and assumptions on which it was developed.

MM CLOs differ from BSL CLOs in ways that may be relevant to tail-risk calibration, including differences in collateral composition, liquidity profiles, borrower characteristics, structural protections, tranche thickness, and performance behavior. These distinctions suggest that separate validation would be beneficial to confirm whether the current calibration appropriately reflects MM CLO risk. Consistent with the Academy's analytical framework, ACLI supports undertaking targeted work, such as a dedicated MM CLO analysis, to evaluate these differences using appropriate data and assumptions. This approach would help ensure that any application of model-derived factors across CLO segments remains grounded in empirical evidence and preserves confidence in the resulting capital outcomes.

In this context, ACLI believes a measured path forward would be to adopt model-derived factors based on the existing BSL analytical foundation for BSL CLOs only, while conducting MM-specific validation in parallel to inform any subsequent calibration decisions. This approach allows for timely implementation where analysis is mature, while maintaining alignment between capital requirements and validated risk characteristics across asset types.

Maintaining this alignment is also important to support a consistent analytical framework as the RBC modeling initiative is extended to additional structured asset classes over time. Ensuring that capital calibration continues to be grounded in the relevant dataset and assumptions for each asset type can help reinforce confidence in the comparability and durability of the framework as it evolves.

ACLI believes this approach is consistent with longstanding RBC practice of distinguishing between assets with similar credit ratings but different underlying risk attributes, and supports a framework that remains analytically grounded, internally consistent, and durable over time.

### **Targeted Improvement Prior to Adoption – A3 Tranche Treatment**

ACLI agrees with the Working Group's suggestion to calculate the C-1 factor for the A3 tranche using an averaging methodology rather than grouping entirely with BBB tranches.

As reflected in prior ACLI comments, improved grading between adjacent ratings reduces rating cliff effects and enhances monotonicity, and more continuous calibration promotes better alignment with underlying economic risk and the broader bond framework.

ACLI recommends that this enhancement be implemented prior to adoption of final factors for year-end 2026.

### **Commitment to Post-Adoption Enhancements (Year-End 2027)**

ACLI believes it is important for the Working Group to view enhancements to the Academy model not as CLO-specific "rework," but as an investment in the broader structured securities modernization agenda. ACLI has previously noted that the Academy's comparable-attributes framework is an appropriate and scalable framework that can be leveraged to map CLO and other structured security risk into an RBC structure. Consistent with that, ACLI understands regulators have also recognized that completion of the CLO effort is part of a process that will enable the NAIC to apply a similar approach to evaluate other asset-backed securities once the CLO work is complete.

While ACLI supports adoption of Academy-derived C-1 factors for year-end 2026, this support is contingent on a clear commitment to continued model refinement. ACLI recommends that the Working Group authorize further development of the Academy model, expose enhancements and related blanks changes for public comment, and target adoption of these refinements for year-end 2027. This approach reflects ACLI's longstanding emphasis that capital frameworks should continue to evolve as analysis is completed and validated.

Accordingly, ACLI recommends that the Working Group secure a clear commitment now to authorize and complete targeted enhancements to the Academy model for year-end 2027. Completing these enhancements promptly would not only strengthen the CLO results, but also improve the analytical foundation and credibility of future structured-asset workstreams on the NAIC roadmap by leveraging a single, consistent modeling platform rather than rebuilding approaches asset-class by asset-class.

From an execution standpoint, ACLI also believes there is a strong practical reason to authorize enhancements without delay: the existing Academy team's familiarity with the data, assumptions, and model architecture is at its highest when the work is active. Keeping the current Academy team intact to complete the enhancement agenda while the data, methods, and institutional knowledge are still fresh increases efficiency, improves continuity, and reduces implementation risk. Conversely, delayed enhancement increases the likelihood that the Academy team must be reconstituted, requiring time to refresh data sources and rebuild shared understanding of key modeling decisions thus creating avoidable friction and risking inconsistent outcomes across future structured-asset analyses.

For these reasons, ACLI views timely authorization of the 2027 enhancement agenda as both a quality imperative for CLO factors and a strategic enabler for the NAIC's broader structured-securities roadmap.

As explained in our comment letter dated April 16, 2026, ACLI recommends prioritizing the following model enhancements for 2027:

*1. Incorporation of Sensitivity Test Results*

Integrate key drivers such as correlation, recovery assumptions, and reinvestment/prepayment dynamics into calibration.

*2. Development of Separate Factors for MM CLOs*

Conduct dedicated analysis reflecting differences in collateral, structure, and data characteristics.

*3. Consideration of Tranche Thickness*

Evaluate tranche thickness as a comparable attribute following further refinement and validation.

*4. Refinement of Grading Between Tranche Ratings*

Continue enhancing smoothness and reducing discontinuities across adjacent ratings.

### **Portfolio Adjustment Factor (PAF) – Knock-On Impact on Bonds**

ACLI appreciates the Working Group's consideration of the Academy's PAF framework. However, ACLI has concerns regarding the knock-on impact on non-CLO bonds arising from the proposed segmentation.

#### *Observed Issue*

Analysis indicates that:

- Separating CLO exposures reduces the issuer count used for bond PAF calculations;
- This results in a higher bond PAF and increased capital requirement for non-CLO bonds; and
- The outcome is counterintuitive, as overall portfolio diversification may increase when CLOs are included.

#### *Recommended Solution*

ACLI recommends including CLO issuers (the CLO vehicles, not underlying loan obligors) in the issuer count used for bond PAF determination, consistent with current RBC instructions. ACLI supports the PAF for CLOs following Option 1 based on Absolute PAF in the exposed Academy recommendation (i.e., 1.00). ACLI views this as a simple solution that should be revisited as future structures are excluded from the bond PAF, which could otherwise result in a disproportionate reduction in the portfolio diversification benefit.

This approach:

- Preserves recognition of portfolio diversification,

- Prevents unintended increases in capital on non-CLO bonds, and
- Provides a practical solution within the current RBC framework.

An Appendix has been included to illustrate this issue and proposed solution.

## Conclusion

In summary, ACLI:

- Supports adoption of Academy derived C-1 factors for a BSL-first implementation in 2026 and separate validation for MM CLOs before any new RBC factors are applied to that asset class;
- Requests a commitment to continued enhancement of the model for year-end 2027;
- Does not support applying floors to model-derived C-1 factors, as doing so would undermine the data-driven approach and consistency with RBC principles;
- Supports further analytical work, rather than floors, to address any concerns related to excess spread or structural complexity;
- Recommends implementing the A3 tranche averaging refinement prior to adoption; and
- Recommends addressing the PAF knock-on effect by including CLO issuers in bond PAF calculations.

ACLI remains committed to working collaboratively with the Working Group and the Academy to ensure a well-supported, accurate, and enduring CLO C-1 framework.

Respectfully submitted,



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## Appendix: Illustration of Knock-on Impact on Bonds and ACLI Proposed Solution

This example considers a situation where an insurer invests in a portfolio consisting of non-CLO bonds with 500 unique issuers and CLOs with 100 unique issuers. Excluding the 100 CLO issuers increases the after-tax C-1 factor on the non-CLO bond portfolio by 8 bps, while including them in the count of issuers for the total bond portfolio maintains the after-tax C-1 factor at 1.86%.

	<i>a</i>		<i>b</i>	<i>a * b</i>
<b>Current After-Tax Factors, Current PAF</b>	After-Tax	Issuers	PAF	After-Tax w/ PAF
NAIC 2.C Bond Portfolio	1.80%	500	1.031	1.86%
NAIC 2.C CLO Portfolio	1.80%	100	1.031	1.86%
		600	1.031	
<b>Proposed After-Tax Factors, Current PAF</b>	After-Tax	Issuers	PAF	After-Tax w/ PAF
NAIC 2.C Bond Portfolio	1.80%	500	1.031	1.86%
NAIC 2.C CLO Portfolio	2.73%	100	1.031	2.81%
		600	1.031	
<b>Proposed After-Tax Factors, Academy Proposed PAF</b>	After-Tax	Issuers	PAF	After-Tax w/ PAF
NAIC 2.C Bond Portfolio	1.80%	500	1.073	1.94%
NAIC 2.C CLO Portfolio	2.73%	n/a	1.000	2.73%
<b>Proposed After-Tax Factors, ACLI Proposed PAF</b>	After-Tax	Issuers	PAF	After-Tax w/ PAF
NAIC 2.C Bond Portfolio	1.80%	600	1.031	1.86%
NAIC 2.C CLO Portfolio	2.73%	n/a	1.000	2.73%



June 5, 2026

VIA ELECTRONIC SUBMISSION

National Association of Insurance Commissioners (“NAIC”)  
*Risk-Based Capital Investment Risk and  
 Evaluation (E) Working Group*  
 1100 Walnut Street, Suite 1500  
 Kansas City, MO 64106-2197

**Re: Proposal 2026-12-IRE (CLO Factors)**

Dear Members of the Risk-Based Capital Investment Risk and Evaluation (E) Working Group (“Working Group”):

The American Investment Council (“AIC”) appreciates the opportunity to comment on *Agenda Item 2026-12-IRE* (“Proposal”)<sup>1</sup>, which proposes amendments to the NAIC Life and Fraternal Risk-Based Capital (“RBC”) report forms (blanks, instructions, and formula) relating to the C-1 treatment of collateralized loan obligation (“CLO”) investments. The Proposal reflects the culmination of a multiyear effort by the Working Group and the Academy to evaluate the appropriate calibration of RBC factors for CLO investments – particularly broadly syndicated loan (“BSL”) CLOs – within the existing C-1 framework. It is informed by, and seeks to implement, the American Academy of Actuaries’ (the “Academy”) ongoing modeling work concerning CLO C-1 factors that was presented to the Working Group on March 2, 2026.<sup>2</sup>

AIC continues to stand behind the views expressed in its April 16, 2026 comment letter<sup>3</sup> to the Working Group regarding the Academy’s March 2 presentation, which addressed key considerations relating to the appropriate treatment of CLO investments under the RBC framework. Those considerations remain relevant in the context of the Proposal and are summarized below:

<sup>1</sup> Available at: [https://content.naic.org/sites/default/files/inline-files/ATTN\\_7%20Proposal%202026-12-IRE%20CLO%20Factor%20proposal-combined\\_0.pdf](https://content.naic.org/sites/default/files/inline-files/ATTN_7%20Proposal%202026-12-IRE%20CLO%20Factor%20proposal-combined_0.pdf).

<sup>2</sup> To date, the Academy’s work has focused on modeling the risk characteristics of BSL CLO tranches and developing “base” factor recommendations intended to reflect relative C-1 risk across ratings categories. The Proposal translates the Academy’s modeled results into the NAIC RBC framework by incorporating CLO-specific factors directly into the RBC blanks, instructions, and formula. The Academy’s presentation is *available at*:

<https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fcontent.naic.org%2Fsites%2Fdefault%2Ffiles%2Finline-files%2FLife-Presentation-CLOUpdateMarch2026.pptx&wdOrigin=BROWSELINK>.

<sup>3</sup> Available at: <https://www.investmentcouncil.org/aic-comment-letter-to-naic-rcbire-wg-regarding-academy-clo-presentation-pdf/>.

## AMERICAN INVESTMENT COUNCIL

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- AIC supports the Academy’s approach for evaluating C-1 risk across asset classes and appreciates the careful consideration of comparable attributes in developing modeled C-1 RBC factors for BSL CLO investments. The Academy’s analysis reflects a rigorous and data-driven effort to assess the relative risk profile of BSL CLO tranches and to align their treatment with the broader structure of the RBC framework.
- While we believe the Academy’s current BSL CLO model is overly conservative, we support its application to BSL CLOs as reflecting a data driven process and outcome. That said, in our view, it would be inappropriate to apply those assumptions beyond BSL CLOs to other asset classes, including other ABS. We respectfully request that the NAIC put out for public comment a detailed workplan and timeline for modeling other structured securities, including other ABS. It is important that any future model assumptions are separately put out for public comment.
- AIC agrees with the Academy’s conclusion, based on its study of BSL CLOs, that BSL CLO tranches exhibit sufficient comparable attributes to support the use of standardized C-1 factors. In AIC’s view, a standardized factor-based approach informed by the Academy’s modeling work – rather than ongoing, individual asset-level modeling – is appropriate from a regulatory perspective. The adoption of standardized factors, informed by the Academy’s modeling work, will enhance consistency in application, facilitate supervision, and reduce unnecessary complexity in insurer reporting.
- AIC supports the overall direction of the Proposal and commends the Working Group for proposing BSL CLO-specific C-1 factors that are intended to be consistent with the Academy’s modeled base factors. The Proposal represents a meaningful step toward more appropriately reflecting the risk characteristics of BSL CLO investments within the RBC framework while maintaining alignment with established RBC principles.
- AIC supports “Option 1” on the basis that it provides a practical and readily implementable framework that achieves the NAIC’s objective of establishing BSL CLO-specific C-1 factors while avoiding unnecessary structural complexity.<sup>4</sup> At the same time, AIC recognizes that further evaluation of structural attributes may be appropriate as the Academy’s work continues to evolve.
- With respect to MM CLO investments, AIC recommends that the Working Group defer the application of the proposed CLO factor framework to MM CLOs until year-end 2027. The Academy’s modeling work to date has focused on BSL CLOs,

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<sup>4</sup> As reflected in the Proposal, the Academy presented two alternative approaches for establishing RBC factors for BSL CLO investments: a “Rating Only (After-Tax Factors)” approach (“Option 1”) and a “Rating and Tranche Thickness (After-Tax Factors)” approach (“Option 2”).

## AMERICAN INVESTMENT COUNCIL

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and additional analysis is required to assess whether that analysis is directly applicable to MM CLOs or whether separate calibration, or adjustments are warranted. A deferral would provide the Academy with an opportunity to undertake such an analysis, and provide the Working Group with an opportunity to further consider incorporating prepayment behavior, reinvestment dynamics, and discount features into the calibration of Option 2, consistent with considerations previously raised by AIC and other stakeholders.<sup>5</sup> Further, a deferral would allow companies to properly capital plan for the application of different RBC factors to MM CLOs.

AIC appreciates the significant effort the Academy and the Working Group have devoted to this workstream and believes that the Proposal reflects a thoughtful and methodical approach to an important and evolving area of insurer investment oversight. We look forward to continued engagement with the Working Group, the Academy, and other interested parties as this work progresses, and as the RBC framework continues to evolve to address new asset classes and investment structures.

Sincerely,

/s/ Shelby Telle

Deputy General Counsel  
American Investment Council

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<sup>5</sup> See e.g., AIC's Letter to the Working Group dated January 29, 2026 (discussing, among other things, prepayment behavior, reinvestment assumptions, and related considerations), *available at*: <https://www.investmentcouncil.org/aic-comment-to-the-naic-on-the-american-academy-of-actuarial-presentation-titled-c-1-subcommittee-update-on-clo-c-1-factors-modeling/>.

June 5, 2026

Philip Barlow

Associate Commissioner of Insurance, District of Columbia  
Chair, Risk-Based Capital Investment Risk & Evaluation (E) Working Group  
1050 First Street, NE, Suite 801  
Washington, DC 20002

**Re: Comments on Proposed C-1 Factors for CLO Debt Tranches (Proposal 2026-12-IRE and Related Concepts)**

Dear Mr. Barlow:

Athene Holding Ltd. (Athene) appreciates the opportunity to provide comments on the Academy's proposed C-1 factors for CLO debt tranches. We commend the Working Group's continued engagement with the Academy C-1 Subcommittee and stakeholders as this important workstream advances toward year-end 2026 implementation.

The development of appropriate C-1 factors for CLOs is among the most consequential investment-related initiatives currently before the NAIC. U.S. life and annuity companies are a critical source of guaranteed income and long-duration protection, and the integrity of the RBC framework that supports that role depends on capital charges that are stable, analytically sound, and credible both as a minimum capital standard and as an early-warning tool. Design choices embedded in the CLO methodology provide foundational precedent across the broader structured asset universe.

**The Working Group Should Adopt the Academy Proposal - Framework and Factors**

In our letter to the Working Group dated April 16, 2026, Athene set forth several key positions that remain central to our view:

- The Academy model is analytically grounded, scalable, and a clear improvement over the status quo, advancing the RBC Model Governance Principles' objectives of accuracy, objectivity, and equal capital for equal risk while creating a consistent, governable standard.
- We recommend adoption of the Academy's framework and the related factors for all CLOs for year-end 2026, with targeted refinements to follow for year-end 2027.
- Option 1 (ratings as a comparable attribute) would be easier to implement this year and would be more appropriate than Option 2 (ratings *and* tranche thickness) as we believe ratings are an appropriate comparable attribute across both broadly syndicated loan

and middle market CLOs,<sup>1</sup> while tranche thickness data has not been collected or analyzed for middle market CLOs.

Our letter also discussed certain baseline assumptions retained in the Academy model – including its loss-given-default (LGD) calibration for senior-secured loans, the absence of collateral prepayments and purchase-price discounts, and par reinvestment – that, when refined, would bring the model's outputs closer to observed CLO risk and further strengthen its alignment with the corporate bond C-1 construct. We therefore recommend giving the Academy additional time to assess and refine these assumptions and address tranche thickness considerations over the next year.

### **Portfolio Adjustment Factor Cross-Asset Diversification Calibration Is Needed**

The proposed Portfolio Adjustment Factor (PAF) is designed to reward diversification with a lower capital multiplier and penalize concentration with a higher one. In principle, a well-diversified portfolio should carry a lower charge than a concentrated one. The Academy's proposal applies that logic within the CLO asset class, but that logic should also be applied across asset classes.

The proposed PAF (Option 1, based on absolute PAF, or Option 2, based on relative PAF) does not provide any credit for the risk reduction that comes from holding CLOs alongside corporate bonds, structured consumer credit, commercial mortgages or other asset types whose loss behavior does not move in tandem with leveraged loan performance. Stated differently, a company holding 11 CLO deals alongside a diversified book of non-correlated assets would have achieved materially greater portfolio-level risk reduction than one holding 11 CLO deals alone, yet both companies would receive the same PAF of 1.0 under either proposed option.

Under the current blended bond framework, CLO holdings contribute to a company's overall issuer count, which in turn reduces its bond PAF below 1.0, producing at least an indirect cross-asset diversification benefit. That benefit disappears when CLOs are carved into a standalone class with a PAF that cannot fall below 1.0. As individual asset classes receive dedicated capital charges that are calibrated in isolation, an insurer optimizing its RBC position is incentivized to concentrate in whichever asset class carries the most favorable standalone treatment. The proposed framework should include a mechanism for recognizing that a portfolio of assets with non-correlated losses is materially safer under stress scenarios than the sum of individual charges implies.

We believe the appropriate long-term solution is a portfolio-level PAF operating across **all** asset classes and counterparties, in which a genuinely diversified insurer would not necessarily face a 1.0 CLO PAF floor. Developing a cross-asset analytical foundation requires additional analysis. While we understand that the immediate question is the treatment of CLOs, the framework should be scalable and lend itself to estimating diversification benefits across the spectrum of asset classes.

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<sup>1</sup> As stated in our April 16 letter, credit rating providers use substantially similar core analytical building blocks across BSL and MM CLOs, including portfolio credit quality, expected default behavior, recovery assumptions, concentration or diversification effects, governance, and tranche cash-flow resilience.

A portfolio-level construct would also better align with the NAIC's RBC Model Governance Principles, which call for risk-sensitive and economically coherent capital requirements and an objective consideration of concentration and diversification risks. Because insurers manage risk at the enterprise portfolio level, diversification benefits arise from the interaction of exposures across asset classes rather than solely within them. Recognizing only intra-asset class diversification while ignoring broader portfolio diversification overstates capital for genuinely diversified insurers and creates incentives to concentrate portfolios.

We therefore recommend deferring adoption of the PAF to allow the Academy and this Working Group to do further analysis and develop a portfolio-level PAF construct.

### **Adding a Corporate Bond Base Factor Floor to the CLO Framework is Inconsistent with the RBC Principles and Unworkable**

The concept of a C-1 corporate bond factor floor for CLO tranches was raised informally on the May 6 Working Group call. Whatever procedural status this concept ultimately carries, the Working Group should reject it. A floor of this type is inconsistent with the RBC Principles, including equal capital for equal risk, accuracy, and objectivity, and substitutes an instrument-inappropriate assumption for the Academy's analytically grounded, asset-specific modeling.

The corporate bond C-1 factors were calibrated to the loss experience of unsecured obligations, embedding LGD assumptions that are structurally inappropriate for CLO tranches. CLO tranches sit atop senior-secured loan pools with contractual subordination, overcollateralization tests, and interest-diversion mechanisms that materially reduce LGD relative to equivalently rated unsecured bonds. The Academy's model has already validated this distinction: senior investment-grade CLO tranches carry modeled C-1 risk materially lower than that of identically rated corporate bonds. Applying a corporate bond floor overrides that finding and substitutes corporate bond LGD for CLO LGD with no asset-specific analytical basis.

The problem is compounded by the existing conservatism in the Academy model. The current BSL CLO factors already overstate expected loss, reflecting broader all-issuer default data rather than the more favorable U.S. BSL-specific default experience, and retaining par reinvestment and zero-prepayment assumptions. Imposing a corporate bond floor on top of a model that already overstates risk compounds conservatism with no offsetting justification.

The RBC Principles require that capital formula updates follow a transparent, data-driven process with stakeholder input, be accurate and objective, and be guided by equal capital for equal risk. NAIC members have committed to applying these Principles to this workstream and confirmed that the CLO methodology will serve as precedent for future asset class frameworks. That precedential weight makes fidelity to the Principles critical: a methodology that departs from them on CLOs establishes the starting point for every future deviation. Overriding the Academy's model-derived outputs with a floor calibrated to a different instrument violates those commitments directly. Regulatory judgment has an appropriate role in RBC governance, but its credibility depends on being anchored to evidence, not applied as a blanket override of a validated, data-driven model.

### **A Corporate Bond Floor Creates Mechanical Contradictions with the Proposed PAF**

Any floor proposal would also need to specify how the CLO PAF applies to the floored amount – a specification that has not been provided and that, as illustrated below, produces punitive outcomes. The following illustration demonstrates the problem when the CLO PAF is applied to a floored bond C-1 base. Assume a pre-PAF Designation 1.F CLO C-1 charge of 0.14 that falls below the Designation 1.F bond C-1 charge of 0.816%, so that the bond factor applies as the base floor. If the CLO PAF (assume 1.1) is higher than the bond PAF (assume 1.0), applying the CLO PAF to the floored base produces a total capital requirement of 0.898% ( $0.816\% \times 1.1$ ). That result exceeds the bond framework total of 0.816% ( $0.816\% \times 1.0$ ) and the CLO framework total of 0.154% ( $0.14\% \times 1.1$ ) by 5.83x. The base floor penalizes twice: first by substituting bond LGD for CLO LGD in the base, then by compounding that inflated base with a higher PAF. Moreover, even if the bond PAF were applied instead of the CLO PAF, the penalty persists. (See Appendix for further detail.)

Whether the CLO PAF or the bond PAF is applied to the floored base, the result exceeds what either framework would produce on its own, confirming that the floor concept is not only analytically unsupported but incompatible with the Academy framework and the RBC Principles.

### **Conclusion**

We appreciate the extensive work done by the Academy and this Working Group to ensure a data-driven framework for CLOs that is consistent with the NAIC's RBC Model Governance Principles. Athene supports adoption of the Academy framework and factors, with a preference for Option 1, but recommends deferring the PAF to allow development of a full portfolio-level PAF.

We urge the Working Group not to apply a bond factor floor to CLO factors, which would be inconsistent with the Academy framework and the RBC Principles. We also strongly recommend that certain refinements as discussed in our April 16 letter and broader PAF analysis be addressed over the next year.

Respectfully submitted,



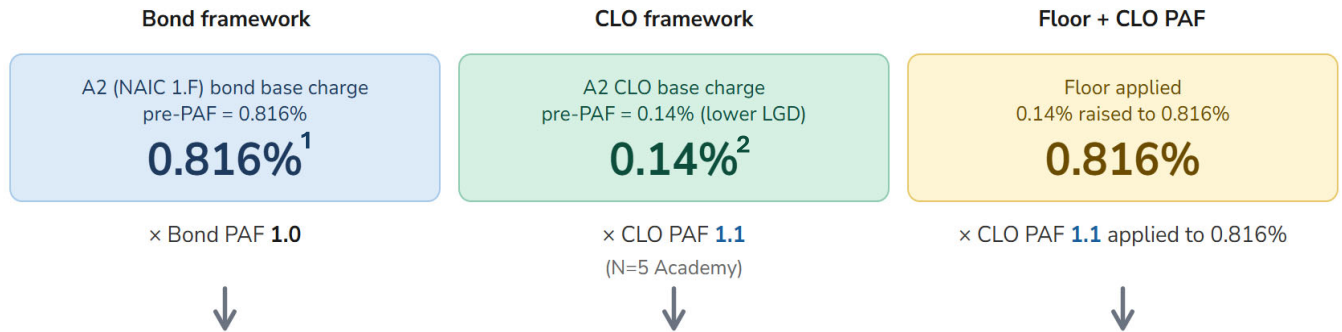
**Michael Consedine**  
Executive Vice President  
Global Head of Government and Regulatory Affairs  
Athene Holding Ltd.

ILLUSTRATION

Floored to Bond C-1, CLO PAF Applied: Double Penalty

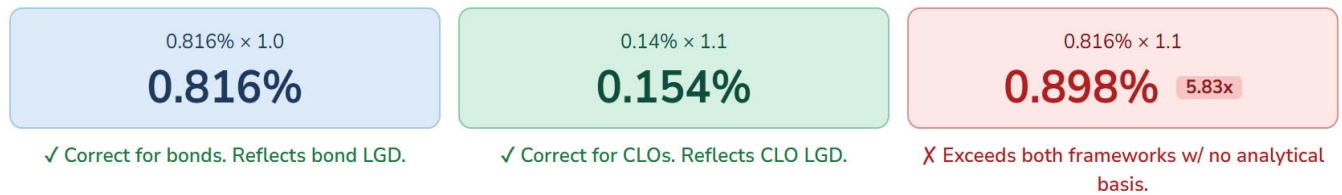
**1 PRE-PAF BASE CHARGES**

CLO base (0.14%) is below bond base (0.816%), so the floor kicks in and substitutes bond LGD for CLO LGD in the floor column.



**2 PAF APPLIED**

The CLO PAF (1.1) is higher than the bond PAF (1.0) and multiplies the already-elevated floor base — producing a floor total of 0.898%, 5.83x the CLO total (0.154%).



**Punitive outcomes with no analytical justification**

- (1) The floor raises the pre-PAF base from 0.14% to 0.816%, substituting bond LGD for CLO LGD;
- (2) The CLO PAF (1.1) then multiplies that inflated base rather than the CLO's own base (0.14%).  
 $0.816\% \times 1.1 = 0.898\%$  — 5.83x the CLO total (0.154%) and above the bond total (0.816%).

Even if the bond PAF were applied instead of the CLO PAF, the penalty persists.

<sup>1</sup> Bond base factor: NAIC Designation 1.F (A2), pre-tax factor = 0.00816. Source: 2025 NAIC Life & Fraternal RBC Forecasting & Instructions.

<sup>2</sup> CLO base factor: A2 modeled factor = 0.0014. Source: American Academy of Actuaries, C-1 Subcommittee Update on CLO C-1 Factors Modeling, presented to the NAIC, March 2, 2026.

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## CAPITAL MANAGEMENT

June 3, 2026

Mr. Philip Barlow, Chair  
Risk-Based Capital Investment Risk and Evaluation (E) Working Group  
National Association of Insurance Commissioners

Re: Proposal 2026-12-IRE CLO Factor

Dear Chair Barlow:

These comments are respectfully submitted to the Risk-Based Capital Investment Risk and Evaluation (E) Working Group ("RBCIRE") on behalf of Hildene Capital Management, LLC ("Hildene") in response to the 2026-12-IRE CLO Factor. Founded in 2008, Hildene is a diversified institutional asset manager specializing in asset-based and structured credit investments, as well as insurance and reinsurance solutions, with over \$18 billion in assets under management.

Hildene appreciates the opportunity to participate in the RBCIRE's consideration of the 2026-12-IRE and commends the regulators and NAIC staff for their work to date on this initiative.

Hildene respectfully requests that the RBCIRE consider exempting several asset classes from the framework due to their poor fit with the model used to generate the framework. Specifically, Hildene believes that credit characteristics of a TruPS collateralized debt obligation ("CDO") are significantly different from those of a broadly syndicated loan ("BSL") such that their inclusion in the framework is not justified.

### ***Background for the proposal***

Since 2022, RBCIRE has worked with the American Academy of Actuaries (the "Academy") to develop an RBC framework for asset-backed securities, beginning with collateralized loan obligations ("CLOs"). Over the course of this project, the Academy's C-1 Subcommittee has developed a model that derives CLO C-1 factors. On March 2, 2026, the Academy presented its latest progress report, which included proposed new RBC factors for BSL CLOs derived from its analysis of the universe of BSL CLOs held by U.S. insurers. Following the progress report, the RBCIRE exposed that presentation for public comment.

One of the open questions in the framework is the scope of the application for the new factors. While the underlying analysis was performed on the highly diversified BSL credits, RBCIRE is considering applying the new factors to middle-market loans and private CLOs. The text in the 2026-12-IRE CLO Factor proposal is even broader – covering the entire "CLOs/CBOs/CDOs" universe. This is a very expansive category with a number of asset classes that differ significantly from typical BSL CLOs. As an example, please consider the impact on TruPS CLOs.

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**HILDENE CAPITAL MANAGEMENT, LLC**

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### ***TruPS CDOs***

TruPS CDOs are collateralized debt obligations backed by pools of trust preferred securities (“TruPS”) — hybrid instruments combining debt and equity features that were issued primarily by banks, bank holding companies, thrifts, and insurance companies, largely in the early-to-mid 2000s, as a cost-effective way to raise regulatory capital. The market today consists of about \$17.8bn of outstanding securities and a large portion of this amount is held by insurance companies.

### ***No arbitrage***

The initial motivation behind the CLO proposal was the perceived arbitrage between the RBC on the underlying collateral and the combination of the RBC on the tranches of the CLO. No such arbitrage ever existed for TruPS CDOs. This is due to the significant differences in collateral credit characteristics (as described below) and increased rating agency conservatism.

The application of the framework to TruPS CDO would exacerbate the relationship between the assets and liabilities. According to the researchers at Bank of America:

“Should the proposal be adopted, the weighted average RBC for the entire stack would be close to 5.5% - a 2x capital charge vs the RBC for a Baa3 portfolio (which is close to 2.7%). This will adversely affect the economics of TRUPs securitizations and potentially higher charges for these bonds’ vs their credit profile.”<sup>1</sup>

### ***Credit characteristic differences***

As with all financial models, a threshold inquiry is whether a model which was fit on a given data set can be extrapolated to a broader universe. The Academy's own methodology recognizes this threshold inquiry. Before deriving factors for an asset class, the Academy's C-1 modeling framework asks a sequence of gating questions – whether the asset class poses risk similar to an existing C-1 asset model, whether there is sufficient data, and whether the asset class shares comparable attributes – to determine whether a common set of factors is appropriate or whether separate treatment is required.<sup>2</sup> This process has not been applied to TruPS CDOs and as Hildene will show below, it would not pass the comparability inquiry the framework is designed to test.

The question of fit for purpose of a model needs to begin with an analysis of the dynamics of the underlying collateral. In the case of TruPS CDOs, the underlying collateral differs significantly from that of BSL CLOs. BSL

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<sup>1</sup> Bank of America Global Research, CLO Weekly, May 8 2026.

<sup>2</sup> Principles for Structured Securities RBC; Academy Presentation to NAIC’s RBCIRE, August 13, 2023

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CLOs are backed by diversified pools of senior corporate loans. TruPS CDOs are backed by deeply subordinated capital of highly regulated entities in just two industries: banking and insurance.

- *Correlation.* CLOs are backed by broad slices of corporate risk while TruPS are highly concentrated. Rating agency methodologies impose high penalties for correlated pools resulting in much more conservative capital structures.
- *Default dynamics.* The underlying TruPS are issued by highly regulated issuers. They do not default in the ordinary sense of corporate issuers (i.e. US Bankruptcy Code) but instead rely on FDIC processes or state rehabilitation laws. This changes the dynamics of the timing of defaults. As a result, analysis of TruPS CDOs also includes long-tailed scenarios.
- *Recoveries.* BSL CLOs are backed by senior secured loans which are modeled by rating agencies to recover 50-70% in case of default. On the other hand, the recovery for TruPS CDOs is on the order of 10%. This is the case due to the asset's deep subordination and role as back-up capital for financial institutions in case of distress.
- *Credit quality.* The typical credit quality for BSL CLOs is in the single-B range. Conversely, the underlying collateral for TruPS CDOs is A to BB rated (predominately in the BBB range).

Table 1. Summary of the difference in credit characteristics between BSL CLOs and TruPS.

	BSL CLOs	TruPS
<b>Underlying Collateral</b>	Broad corp exposure	Regulated Banks and Insurance cos
<b>Correlation</b>	Consistent with C-1 Bond	Highly correlated
<b>Default dynamics</b>	random	Back ended
<b>Recoveries</b>	Snr Sec Loans – 50-70%	10%
<b>Credit quality</b>	Single-B	A to BB

In assigning ratings to TruPS CDOs, rating agencies are much more conservative than BSL CLOs. Specifically, the combination of correlation / recovery differences moves model realized losses much closer to the body of the probability distribution – resulting in much more conservative ratings and capital structure.

Taken together, the credit characteristics of TruPS are too removed from those of corporate credit and, as a result, are not a variation of BSL CLOs but rather a distinct securitization asset class with a risk profile that falls outside the framework used by the Academy.

### ***Impact of Rating Methodology Differences***

In their April 16, 2026 comment letter, Moody's Ratings rightfully raises the issue of comparability across rating agencies. They recommended that the NAIC differentiate between the "PD" (probability of default)

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based ratings and “EL” (expected loss) based ratings due to their methodological differences. These differences were quantified by the Academy itself and are quite significant.<sup>3</sup>

The penalty of the proposed framework for TruPS CDOs is compounded due to the fact that the rating agencies active in the area are the ones who produce the much more conservative EL ratings. So, even if one ignores the differences in the underlying collateral described above, the new framework penalizes TruPS CDOs because their ratings are not drawn randomly from the pool of the ratings used to validate the Academy model but instead are based on ratings from the more conservative EL rating agencies.

### **Conclusion**

For the reasons set out above, Hildene respectfully submits that the credit characteristics of TruPS CDOs, specifically, their concentrated and highly correlated collateral, their distinct default and recovery dynamics, and the more conservative expected-loss rating conventions under which they are rated, differ so fundamentally from the BSL CLOs on which the Academy calibrated its model that the proposed factors cannot reliably be extrapolated to them.

Applying BSL-derived factors to TruPS CDOs would impose a capital charge that *materially* overstates their economic risk and double-counts the conservatism already embedded in their ratings. Accordingly, Hildene respectfully requests that the RBCIRE exclude TruPS CDOs from the proposed framework and maintain existing RBC treatment for TruPS CDOs pending a separate, asset-class-specific analysis of their risk. Moreover, Hildene would very much welcome the opportunity to provide data and to work with the Working Group and the Academy on any such analysis given its deep expertise around TruPS CDOs. We thank the RBCIRE for its consideration of these comments.

Regards,



Dushyant Mehra  
Co-CIO

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<sup>3</sup> Slide 33 of the Academy’s presentation shows an approximate order of magnitude difference between PD and EL ratings when measured by average C-1 required.



June 4, 2026

Mr. Philip Barlow, Chair  
Risk-Based Capital Investment Risk and Evaluation (E) Working Group  
National Association of Insurance Commissioners  
1100 Walnut Street, Suite 1500  
Kansas City, MO 64106-2197

Re: Proposal 2026-12-IRE CLO Factor

Submitted Electronically

Dear Chair Barlow:

MetLife, Inc. appreciates the opportunity to comment on *Proposal 2026-12-IRE CLO Factor*. We strongly support the NAIC's efforts to align capital requirements with underlying economic risk and to address the structural inconsistencies that can arise in the current framework. We thank the numerous parties that have contributed to this effort. MetLife supports the ACLI comments on the same topic and this letter provides additional analysis on key points for consideration.

When prudently used, Asset Backed Securities (ABS) can be a constructive component of an insurer's diversified investment portfolio. As with any asset class, however, risks must be appropriately understood and assigned capital charges commensurate with those identified risks. The structured nature of ABS—particularly subordinated tranches—introduces tail-risk characteristics that differ materially from corporate bonds. Ensuring that RBC accurately reflects these risks is essential to maintaining a sound and durable regulatory framework. The core issue with respect to insurer investments today is not whether assets hold certain labels such as "private credit," but whether the regulatory framework is appropriately capturing underlying risk.

We share the following key observations and recommendations, with further detailed analysis below.

- At the inception of this initiative, the NAIC identified the possibility of capital arbitrage under the current RBC framework, and work was intended to eliminate arbitrage opportunities. This is achieved by aligning capital with risk.
- MetLife supports the analytical approach of the American Academy of Actuaries ("the Academy") as a means to achieve this objective. However, like the ACLI, we find that the current model is materially incomplete in key aspects and if it were to be applied, arbitrage opportunities would endure.
- Regardless of the Working Group's decision on the current factor proposal, we urge the Working Group to publicly commit to continuing this initiative, including by



requesting continued and immediate work by the Academy to further calibrate the CLO model with the goal of providing updated CLO factors in 2027 that more closely align with underlying risk.

- In parallel, we recommend that the Working Group re-emphasize the elimination of arbitrage as a primary goal and develop a methodology to assess the effectiveness of the Academy model (or any other approach) in closing the arbitrage gap, with a primary focus on economic risk and secondary application of statutory accounting impacts. In doing so, the NAIC can validate that the effort has closed the arbitrage gap and satisfied the primary objective.

These steps will support completion of the primary objective of this NAIC initiative while helping to preserve a vibrant and stable insurance industry.

### **Significant RBC Arbitrage Opportunity Available Today**

Concern about RBC arbitrage has been a core driver of NAIC work to update RBC factors for structured assets. We encourage the Working Group to apply this analytical lens to the RBC factors generated by the Academy CLO model to verify that those factors close arbitrage gaps.

The memo authored by the NAIC Structured Securities Group (SSG) in 2022 illustrates this concern.<sup>1</sup> In that memo, SSG notes that “[i]t is currently possible to materially (and artificially) reduce C1 capital requirements just by securitizing a pool of assets.” The memo provides an example in which structuring a pool of ‘B’ rated loans that bear a 9.5 percent RBC factor into a CLO and holding the entire transaction on balance sheet would then require an average RBC factor of 2.9 percent – a two-thirds reduction in required capital when both sets of holdings “have the same economic risk.”

The *Purposes and Procedures Manual of the NAIC Investment Analysis Office* further articulates RBC arbitrage:

*“An insurer that purchases every tranche of a CLO holds the exact same investment risk as if it had directly purchased the entire pool of loans backing the CLO. The aggregate risk-based capital (RBC) factor for owning all of the CLO tranches should be the same as that required for owning all of the underlying loan collateral. If it is less, it means there is risk-based capital (RBC) arbitrage.”<sup>2</sup>*

The analysis in the SSG memo and the P&P Manual compare the economic risk of assets against the regulatory capital requirements of those assets. This is the right approach given that arbitrage behavior is founded in the incentives established by the

<sup>1</sup> [Risk Assessment of Structured Securities – CLOs, May 25, 2022, NAIC Structured Securities Group](#)

<sup>2</sup> [Purposes and Procedures Manual of the NAIC Investment Analysis Office, as of December 2025, p.’v’](#)



RBC structure. The impacts of statutory accounting considerations may be relevant for particular tranches, including the residual, but that analysis should follow primary analysis on an economic basis.

During the May 11 Working Group meeting, the Academy presented several slides that addressed capital arbitrage in the appendix of the presentation.<sup>3</sup> In this analysis the Academy drew the conclusion that based on the Academy's proposed CLO RBC factors and adjusting for accounting impacts, the arbitrage gap is effectively closed. We believe that this conclusion is premature given that, as the Academy has noted, there are material modeling sensitivities that have not been addressed due to timing constraints, and these sensitivities can lead to meaningfully different conclusions around the appropriate RBC factors at the individual tranche level. Only once the appropriate tranche-level factors based on economic analysis are determined should accounting treatment be considered to make any needed adjustments. Otherwise, there may continue to be significant arbitrage between the tranche-level RBC and the actual economic risk that each tranche poses.

We recommend that the Working Group seek refinement of this arbitrage analysis by approaching from an economic risk perspective, akin to SSG and P&P Manual analysis. In order to do this, the remaining material variable sensitivities identified by the Academy, like recovery rate assumption and systemic risk correlation assumption, should be incorporated into the factor calculation first, as described in the next section.

### **Current Model Requires Further Calibration**

MetLife supports the Academy's effort to develop an analytically grounded approach to calibrating C-1 factors for CLOs. The transition toward a cash-flow-based modeling framework is directionally appropriate and represents a meaningful step toward a more risk-sensitive system.

However, consistent with our prior comments and those of the ACLI, we believe that the model remains materially incomplete. The Academy itself identified several key sensitivities that require additional analysis,<sup>4</sup> including:

- Systemic risk and correlation assumptions, particularly under stress conditions
- Recovery rate assumptions, including the calibration of loss given default
- Collateral reinvestment and prepayment dynamics

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<sup>3</sup> [C-1 Subcommittee Update on CLO C-1 Factors Modelling – Residual Tranches and Portfolio Adjustment Factors](#)

<sup>4</sup> [C-1 Subcommittee Update on CLO C-1 Factors Modelling](#)



As evidenced in the Academy's own analysis, these assumptions can materially affect capital outcomes, especially for subordinated tranches. The magnitude and asymmetry of these impacts underscore that these inputs are not secondary refinements, but foundational elements of the model.

Until these sensitivities are fully developed, tested, and validated, the resulting factors may not accurately reflect underlying risk and may not meaningfully advance the NAIC's objective of closing the arbitrage gap.

### **Risks of an Interim Approach**

While we appreciate the NAIC's desire to move forward expeditiously, we are concerned that adopting the current proposal on an interim basis could lead to unintended consequences. In particular, there is a risk that an interim solution becomes a de facto long-term standard, reducing momentum to complete the work and refine the framework.

### **Setting the Standard for our Industry**

Given that this initiative represents the foundation for broader modernization of RBC treatment for structured assets, it is important that the initial implementation be both analytically sound and durable. Premature implementation risks embedding shortcomings into the framework, complicating future efforts to address them, and setting a low bar for work on other categories of ABS, which inevitably will reference the CLO RBC factors as a benchmark.

We note that other regulators are closely monitoring the NAIC's work in this area. Given the scale and influence of the U.S. insurance and capital markets, the NAIC's approach is likely to serve as a reference point for other jurisdictions. This reinforces the importance of establishing a framework with enduring credibility.

### **Conclusion**

In light of the above considerations, we recommend that the NAIC:

- Formally request that the Academy continue work to complete the model for 2027 and address the identified sensitivities by including a specific charge to do so next year.
- Evaluate progress on the CLO RBC initiative through the lens of arbitrage reduction that fully accounts for tranche-level economic losses and continue work until the arbitrage gaps are closed.



We believe this approach will better align capital with risk, promote transparency, and support the long-term durability of the RBC framework and life industry.

MetLife appreciates the opportunity to provide these comments and welcomes continued engagement with the NAIC on this important initiative.

Sincerely,

A handwritten signature in black ink that reads 'Chuck Scully'. The signature is written in a cursive, flowing style.

Chuck Scully  
Executive Vice President and CIO  
MetLife Insurance Investments

ATTACHMENT FIVE  
PENGING