

Draft date: 3/4/24

2024 Spring National Meeting
Phoenix, Arizona

LIFE RISK-BASED CAPITAL (E) WORKING GROUP

Sunday, March 17, 2024

9:00 – 10:00 a.m.

Phoenix Convention Center—301 A West—Level 3

ROLL CALL

Philip Barlow, Chair	District of Columbia	William Leung	Missouri
Ben Slutsker, Vice Chair	Minnesota	Michael Muldoon	Nebraska
Sheila Travis	Alabama	Jennifer Li	New Hampshire
Thomas Reedy	California	Seong-min Eom	New Jersey
Wanchin Chou	Connecticut	Bill Carmello	New York
Dalora Schafer	Florida	Andrew Schallhorn	Oklahoma
Vincent Tsang	Illinois	Rachel Hemphill	Texas
Mike Yanacheak	Iowa	Tomasz Serbinowski	Utah

NAIC Support Staff: Dave Fleming

AGENDA

1. Consider Adoption of its Jan. 25 and Fall National Meeting Minutes—*Philip Barlow (DC)* Attachments A & B
2. Receive Updates from its Subgroups—*Philip Barlow (DC)*
 - A. Generator of Economic Scenarios (GOES) (E/A) Subgroup
 - B. Longevity Risk (E/A) Subgroup
 - C. Variable Annuities Capital and Reserve (E/A) Subgroup
3. Discuss Repurchase Agreements—*Philip Barlow (DC)* Attachments C – E
4. Discuss Covariance—*Philip Barlow (DC)* Attachment F
5. Discuss Any Other Matters Brought Before the Working Group —*Philip Barlow (DC)* Attachments G & H
6. Adjournment

Draft: 3/4/24

Life Risk-Based Capital (E) Working Group
Virtual Meeting
January 25, 2024

The Life Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met Jan. 25, 2024. The following Working Group members participated: Philip Barlow, Chair (DC); Thomas Reedy (CA); Lei Rao-Knight (CT); Vincent Tsang (IL); Mike Yanacheak (IA); Fred Andersen and Ben Slutsker (MN); William Leung (MO); Michael Muldoon (NE); Jennifer Lee (NH); Seong-min Eom (NJ); Amanda Fenwick (NY); Rachel Hemphill (TX); and Tomasz Serbinowski (UT).

1. Discussed the American Council of Life Insurer's (ACLI) Repurchase Agreements Proposal

Brian Bayerle (American Council of Life Insurers—ACLI) said the proposal had been discussed last year but the ACLI wanted to provide a walkthrough the proposal again as a refresher for the Working Group. He noted the proposal included the proposal form, instruction changes and changes to the RBC blanks. Martin Mair and Alex Strickler (MetLife) presented an overview (Attachment 1) of the repurchase agreement proposal. They discussed the: 1) conforming program criteria; 2) instruction enhancements; 3) reporting enhancements and 4) proposed general interrogatory enhancements. The Working Group agreed to expose the proposal for a 30-day public comment period and directed NAIC staff to forward the referral (Attachment 2) to the Statutory Accounting Principles (E) Working Group and the Capital Adequacy (E) Task Force to those groups.

2. Discussed Proposal to Add Line for Total Adjusted Capital (TAC) Adjustment for Non-Admitted Affiliates

Dave Fleming (NAIC) said the proposal adds a line to LR033, Calculation of Total Adjusted Capital, to address the treatment of non-admitted insurance affiliates. This treatment was adopted as part of proposal 2022-09-CA, the revised treatment of affiliated investments. This line was omitted from the life structure change but was done for 2023 by including it in an existing line. This proposal makes no change in the treatment but makes the life formula consistent with the other RBC formulas. The Working Group agreed to expose the proposal for a 30-day public comment period.

3. Discussed Proposal to Add Line to Schedule BA Mortgages for Omitted Asset Valuation Reserve (AVR) Line

Fleming said the proposal adds a line to LR009 to specifically address line 44 of the Asset Valuation Reserve (AVR) Equity Component. This AVR line was not included in the LR009 changes made with the mortgage methodology change in 2013. This proposal does not include a factor but facilitates the application of one specific to this category if appropriate. The Working Group agreed to expose the proposal for a 30-day public comment period.

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

Draft: 12/12/23

Life Risk-Based Capital (E) Working Group
Orlando, Florida
December 2, 2023

The Life Risk-Based Capital (E) Working Group of the Capital Adequacy (E) Task Force met Dec. 2, 2023. The following Working Group members participated: Philip Barlow, Chair (DC); Sanjeev Chaudhuri (AL); Thomas Reedy (CA); Wanchin Chou (CT); Carolyn Morgan (FL); Mike Yanacheak (IA); Vincent Tsang (IL); Fred Andersen (MN); Michael Muldoon (NE); Jennifer Li (NH); Seong-min Eom (NJ); Bill Carmello (NY); Eli Snowbarger and Diane Carter (OK); Rachel Hemphill (TX); and Tomasz Serbinowski (UT). Also participating were: Tom Botsko and Peter Weber (OH).

1. Adopted its Oct. 4 and Summer National Meeting Minutes

The Working Group met Oct. 4 and took the following action: 1) discussed C-2 mortality risk.

Leung made a motion, seconded by Eom, to adopt the Working Group's Oct. 4 (Attachment) and Aug. 13 (see *NAIC Proceedings – Summer 2023, Capital Adequacy (E) Task Force, Attachment*) minutes. The motion passed unanimously.

2. Discussed Repurchase Agreements

Barlow said the American Council of Life Insurers (ACLI) presentation was exposed for comment, and the only comment received was a follow-up from ACLI. He said the ACLI has since provided an official proposal with the needed structural changes to the risk-based capital (RBC) blank and instructions. He said NAIC staff have discussed the proposal and believe some aspects merit referrals or requests for input from other NAIC groups, specifically the Statutory Accounting Principles (E) Working Group and the Blanks (E) Working Group for the accounting and reporting of repurchase transactions and the Capital Adequacy (E) Task Force for consideration of the application to the other RBC formulas. Barlow said a call to expose the actual proposal will be scheduled before the end of January with direction to staff to draft the suggested referrals.

3. Discussed C-2 Mortality Risk

Barlow said the memorandum on implementing the updated C-2 mortality risk (Attachment Fou) is more explanation than guidance. The note to the financial statement that was part of the American Academy of Actuaries' (Academy's) proposal was to provide an annual statement source for the RBC calculation, but the proposal adopted was not contingent upon it as the RBC instructions provide the details for categorization. The data is now proposed to be captured for 2024 in a general interrogatory, which is currently exposed by the Blanks (E) Working Group. For 2023 reporting, this will be company records. The Working Group agreed to expose the memorandum for a 10-day public comment period ending Dec. 15.

4. Discussed the Status of its Subgroups

The work of the Longevity Risk (E/A) Subgroup and the Variable Annuities Capital and Reserves (E/A) Subgroup remains contingent upon the outcome of other work streams nearing completion. Yanacheak provided an update on the status of the Generator of Economic Scenarios (GOES) (E/A) Subgroup. He said there was extensive discussion of the NAIC's initiative to implement a new generator at the Life Actuarial (A) Task Force session of the Fall National Meeting and encouraged anyone interested in this project to review the materials and other items

from that meeting. As part of that meeting, he said comments were heard on an exposure that sought feedback on whether to utilize the Conning-developed corporate model or another model developed by the Academy. All of the commenters noted a preference for the model from the Academy, citing the full transparency of the model documentation provided by the Academy and the relative simplicity of the model. Some commenters noted that the Conning model could be appropriate for statutory reserves and capital but that more documentation would need to be released before they could support it. Comments were also received on a new set of acceptance criteria. Additionally, NAIC staff and Conning presented the results of a new calibration of the treasury and equity models.

Finally, an update was given on the project timeline. NAIC staff noted that the release of a new calibration of the corporate model and the model office testing had taken more time than expected but was not expected to delay the overall goal of exposing a new set of scenarios to use in an industry unaggregated field test in March 2024. Chris Conrad (Academy), chair of the Academy's Annuity Reserves & Capital Subcommittee, said the under-development principle-based framework for variable annuities (VAs), which includes indexed annuities, is expected to commence in July 2024. He said there is some dependency with the field test, which involves the Academy, the ACLI, and the NAIC, so, like other previous field tests, the parties plan to engage a consultant to assist in the field test. That consultant has been selected with the hope of finalizing that by the end of the year. The consultant will finalize the project plan, update the field test specification plans, and start engaging with industry soon. Conrad said what is relevant to this Working Group in that part of the field test is to perform tests relevant to capital, specifically tests to inform possible C-3 updates for non-VAs. In advance of the field test, he said the Academy would like to collaborate with this Working Group, but closer to when the field test will actually be conducted. He said the Academy has drafted some possible edits to C-3 language to accommodate VM-22 and to be more consistent with the approach of VM-21 and C-3, Phase II.

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

SharePoint/NAIC Support Staff Hub/Committees/E CMTE/CADTF/2023-3-Fall/Life RBC 12-2-23 Minutes.docx



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March 8, 2024

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

Re: Exposure of the ACLI RBC Repurchase Agreement (Repo) Proposal (2024-03-L)

Dear Chair Barlow:

The American Council of Life Insurers (ACLI) appreciates the LRBC Working Group's consideration and exposure of our proposal to reduce the repo charge to 0.2% for programs that meet "conforming program criteria" through the General Interrogatories, including identification of a reinvestment pool funded by conforming repo programs.

Following conversations with regulators regarding our previous suggestions on February 23, 2024, ACLI has decided to amend our proposal slightly to leave the word "dedicated" within the RBC Instructions while specifying that the primary conforming requirement should be to identify a "pool of" dedicated reinvested assets. Within the Background section, the change would appear as such:

- To qualify for a "conforming" securities lending program, insurers must attest that their program conforms to appropriate operational and investment risk guidelines and that the collateral margin applied to transactions is within the industry standard. The primary "conforming" requirement is to identify a **pool of dedicated reinvestment portfolioed assets** to match the securities lending liability.

In a similar vein, we also recommend the following change in the ACLI proposal section:

1. Establish "conforming program criteria" for repo, similar to securities lending. Reporting insurers must attest that they have **identified a pool of dedicated reinvestment** assets to

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acli.com

support the repo liability and enhance their statutory reporting so that regulators can validate these attestations.

Thank you once again for the consideration of our proposal and we look forward to future discussions with regulators on this topic.

Sincerely,

 *Colin Masterson*

cc: Dave Fleming, NAIC

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 checked="" type="checkbox"/> Life RBC (E) Working Group |
| <input type="checkbox"/> Catastrophe Risk (E) Subgroup | <input type="checkbox"/> Investment 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"/> P/C RBC (E) Working Group | <input type="checkbox"/> RBC Investment Risk & Evaluation (E) Working Group |

<p style="text-align: right; margin: 0;">DATE: XX/YY/2024</p> <p>CONTACT PERSON: <u>Brian Bayerle</u></p> <p>TELEPHONE: <u>(202) 624-2169</u></p> <p>EMAIL ADDRESS: <u>BrianBayerle@acli.com</u></p> <p>ON BEHALF OF: <u>ACLI</u></p> <p>NAME: <u>Brian Bayerle</u></p> <p>TITLE: <u>Chief Life Actuary</u></p> <p>AFFILIATION: <u>ACLI</u></p> <p>ADDRESS: <u>101 Constitution Ave, NW Suite 700</u> <u>Washington, DC 20001</u></p>	<p style="text-align: center; margin: 0;">FOR NAIC USE ONLY</p> <hr/> <p>Agenda Item # _____ Year _____</p> <p style="text-align: center; margin: 0;">DISPOSITION</p> <p>ADOPTED:</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>EXPOSED:</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>REJECTED:</p> <p><input type="checkbox"/> TF <input type="checkbox"/> WG <input type="checkbox"/> SG _____</p> <p>OTHER:</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)

Summary: Life Risk-Based Capital (RBC) currently has a C-0 charge for Repurchase Agreements (repo) advances of 1.26% computed on LR017. ACLI proposes a reduction of the repo charge to 0.2% for programs that meet “conforming program criteria” through the General Interrogatories, including identification of a reinvestment pool funded by conforming repo programs; General Interrogatories will be updated as part of this proposal. This reduced charge will apply to footnote 5 F (7) ending balance for collateral received under secured borrowing (or the conforming amount as determined by the instructions). The overcollateralized amount (the difference in statement balances for the above-mentioned footnote 5 F (7) ending balance for collateral received under secured borrowing net of the statement balance for Footnote 5 F (5) defining the fair value ending balance for securities sold under repurchase secured borrowing) would receive C-1 RBC factor for bonds rated BBB; this would only apply to counterparties rated BBB or higher. All other repo programs that do not meet the conforming programing criteria or where the counterparty is rated BB or lower would continue to receive the current 1.26% charge.

Rationales for change: Approval of this proposal would align capital charges and disclosure requirements between conforming securities lending programs and conforming repo programs, incentivizing insurers to diversify sources of short-term funding. Enhanced disclosure for conforming repo programs would improve regulatory oversight, while RBC alignment would help insurers reduce interconnectedness with Primary Dealers and the idiosyncratic risk associated with bank balance sheet management, particularly during periods of financial stress.

Background:

Repurchase agreements and securities lending transactions are similar forms of short-term collateralized funding for life insurers. Counterparties are a key difference between these two funding structures. While Primary Dealers act as intermediaries for securities lending transactions, repo is generally executed directly with end-counterparties, such as money market funds. When risk-based capital (RBC) standards were developed, both securities lending and repurchase agreements were assigned C-0 RBC factors of 1.26%. Around 2006, the NAIC revised the C-0 RBC factor for “conforming” securities lending programs to 0.2%:

- To qualify for a “conforming” securities lending program, insurers must attest that their program conforms to appropriate operational and investment risk guidelines and that the collateral margin applied to transactions is within the industry standard. The primary “conforming” requirement is to identify a pool of dedicated reinvestment portfolio ed assets to match the securities lending liability.
- Adjusting RBC requirements for smaller “repo” programs was left for a later date.

Since the Great Financial Crisis, regulators and market participants have worked towards reducing the interconnectedness of funding through both regulation and risk management practices. A core tenant of these efforts has been to reduce concentration risk, both in single counterparty and source. Reliance on Primary Dealers in the securities lending market has exposed insurers to the idiosyncratic risks that drive bank balance sheet availability, particularly under stress. The expansion of funding sources to include repo counterparties would enhance overall liquidity for Securities Lenders, increase stability in secured funding markets during times of stress and diversify loan exposures, collectively reducing systematic risk. Alignment of RBC charges would support this enhancement.

ACLI Proposal

The ACLI proposal for conforming repo programs mirrors existing RBC for conforming securities lending:

1. Establish “conforming program criteria” for repo, similar to securities lending. Reporting insurers must attest that they have ~~dedicated-identified~~ a pool of dedicated reinvestment ~~edment~~ assets to support the repo liability and enhance their statutory reporting so that regulators can validate these attestations.
2. Proposed RBC for conforming repo programs is the sum of:
 - 0.20% charge for repo assets, plus
 - Additional RBC applied to insurer’s net uncollateralized counterparty exposure (typically 2% of funding amount). To be conservative, the C-1 RBC charge for bonds rated BBB is applied to the insurer’s net counterparty exposure. Counterparts rated lower than BBB would not qualify for a conforming repo program.

Additional Staff Comments:

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

Revised 11-2023

MEMORANDUM

TO: Philip Barlow, Chair, Life Risk-Based Capital (E) Working Group

FROM: Dale Bruggeman, Chair, Statutory Accounting Principles (E) Working Group

DATE: February 20, 2024

RE: Repurchase Agreement RBC Proposal Referral

The Statutory Accounting Principles (E) Working Group (SAPWG) appreciates the Life Risk-Based Capital (E) Working Group soliciting comments on the proposal from the American Council of Life Insurers (ACLI) to modify the treatment of repurchase agreements in the life risk-based capital (RBC) formula to converge with treatment for securities lending programs. As detailed in the ACLI-sponsored proposal, the request is to incorporate a concept of ‘conforming programs’ for repurchase agreements, with the collateral attributed to those programs assigned a 0.2% (.0020) factor instead of a 1.26% (.0126) factor.

Although the RBC proposal was exposed for a potential year-end 2024 effective date, the SAPWG notes that the statutory accounting and reporting for securities lending and repurchase agreements are currently different. As such, the SAPWG requests that the LRBCWG defer consideration of the proposal until the SAPWG has time to assess the differences and consider converging revisions (if deemed appropriate) before modifying the RBC formula. Particularly, securities lending collateral is detailed in Schedule DL: Securities Lending Collateral Asset for 1) collateral that an entity has received and reinvested and 2) collateral received that the entity has not reinvested but for which the entity has the ability to sell or repledge. This schedule currently does not include repurchase agreement collateral and capturing consistent information on collateral for both securities lending and repurchase agreements is a topic that the SAPWG would like to consider before providing a response to the RBC proposal. As detailed within the proposal, the ACLI identifies that repurchase agreements and securities lending transactions are similar forms of short-term collateralized funding for life insurers, with counterparties reflecting the key difference between the two funding structures. With these similarities, consistent reporting of the collateral seems appropriate to ensure financial regulators receive comparable information regardless of the legal form of the agreement. This is further supported by a review of year-end 2022 data which identified that securities associated with securities lending transactions are declining, whereas securities associated repurchase agreements are increasing.

In addition to time to permit assessment and convergence of accounting and reporting, the SAPWG also notes that blanks reporting revisions would be required to incorporate a new general interrogatory for reporting entities to capture repurchase collateral from conforming programs and for that data to be pulled directly into the RBC formula. With the timing of the Blanks (E) Working Group process, such revisions would need to be adopted in

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May to be in effect for year-end. By deferring beyond 2024, further time can be provided to ensure the blanks reporting revisions are properly reflected. Although the revisions appear to be limited, the SAPWG has also noted that the guidance to complete the current securities lending conforming program Annual Statement General Interrogatories are captured in the RBC Instructions. To ensure consistency in reporting, the SAPWG would recommend including guidance within the Annual Statement Instructions. It is noted that the financial statement preparers may not have the RBC instructions, therefore the current process creates a disconnect in which preparers may not have the information to properly assess whether a program should be classified as conforming or nonconforming.

Lastly, in response to a preliminary comparison of conforming and nonconforming securities lending programs, it has been identified that very few reporting entities report any securities lending collateral as part of a nonconforming program. Although the instructions identify what is permitted as “acceptable collateral,” from a review of the collateral reported on Schedule DL, reporting entities are classifying programs as conforming even though the reported Schedule DL collateral is outside the parameters of acceptable collateral. From initial assessments, it appears that there may be interpretation differences on whether the “acceptable collateral” requirement encompasses only the collateral received from the counterparty and not what the reporting entity currently holds due to reinvestment of the original collateral. Further clarification of the intent of the guidelines and what is conforming or nonconforming may be warranted before expanding the provisions to include repurchase agreements. It is highlighted that the provisions to separate conforming and nonconforming programs in the RBC formula was incorporated before the great financial crisis, and significant changes to accounting and reporting (including Schedule DL) were incorporated because of how securities lending transactions impacted certain reporting entities during the crisis. Consideration of how the current securities lending accounting and reporting requirements interact with the conforming program requirements may want to be assessed before expanding the conforming program concepts to repurchase agreements with a reduced RBC factor.

In conclusion, the SAPWG appreciates the opportunity to provide immediate comments on the initial exposure and requests that consideration on the proposal be deferred to allow assessment and convergence of accounting and reporting requirements for securities lending and repurchase agreements. The SAPWG will add this issue to its working agenda and proceed as timely as possible and will keep the LRBC WG informed of discussions and progress as this topic is considered.

Cc: Dave Fleming, Julie Gann, Robin Marcotte, Jake Stultz, Jason Farr, Wil Oden, Mary Caswell, Maggie Chang, Eva Yeung, Crystal Brown

https://naiconline.sharepoint.com/teams/FRSStatutoryAccounting/Stat_Acctg_Statutory_Referrals/2024/SAPWG_Response_to_LRBC_Repo_proposal_Final_2-20-24.docx

LRBC Correlation

Life Risk-Based Capital discussion

Paul Navratil, MAAA, FSA

Agenda

2

The agenda for this discussion is to:

1. Introduce covariance within LRBC as topic for possible review
2. Align on guiding principles
3. Share preliminary thoughts on potential correlation structure
4. Outline data elements that could inform a recommendation
5. Gather feedback on next steps

Background

3

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

Rationale for Review of Covariance Within LRBC

4

Due for regular maintenance review

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

Current approach is simplistic

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

Impact to effectiveness of LRBC could be material

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

Guiding Principles

5

Consistent measure of aggregate company risk

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

Consistent with targeted statistical safety level of RBC

- Target a correlation approach that is consistent with a CAL RBC that is approximately 95th percentile over a multiyear horizon
- Recognize that correlations may not be linear across all outcomes

Practical to implement

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

Potential Structure

6

Linear correlation between major risk categories expressed as a correlation matrix

	<u>Credit</u> C-1o, C-3b	<u>Equity Market</u> C-1cs, C-3c	<u>Interest Rate</u> C-3a	<u>Insurance</u> C-2a, C-2b	<u>Business</u> C-4a, C-4b
Credit	1				
Equity Market	TBD %	1			
Interest Rate	TBD %	TBD %	1		
Insurance	TBD %	TBD %	TBD %	1	
Business	TBD %	TBD %	TBD %	TBD %	1

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

- C-2 Insurance Risk today is the result of nested correlation matrix between C-2a mortality and C-2b longevity

	<u>Mortality C-2a</u>	<u>Longevity C-2b</u>
Mortality C-2a	1	-25%
Longevity C-2b	-25%	1

Calibration Approach

7

Historical data would inform calibration between market risks

- 40+ years of historical data is readily available on credit losses, equity markets, and interest rates
- Expect to consider multiple methods to proxy statutory losses using available market data over different time horizons
- Historical data could also be used to consider correlations between asset classes within C-10 (real estate, mortgages, credit)

Lack of historical data on insurance and business risk would require greater reliance on theory and judgment

- Emerging experience from COVID-19 may provide a data point to consider on insurance risk
- Challenging to develop these correlations based entirely on historical data

Existing Covariance Within LRBC

8

RBC after Covariance Before Operational Risk =

$$\mathbf{C0 + C4a + \text{Square Root of } [(C1o + C3a)^2 + (C-1cs + C-3c)^2 + (C2)^2 + (C3b)^2 + C4b)^2]}$$

Initial Observations

9

- 100% correlations are higher than in other regulatory frameworks
 - Credit and Interest Rate risks correlated at 100% compared to 50% for IAIS
- Many 0% correlations are lower than in other regulatory frameworks
 - Credit and Market at 0% compared to 25% for IAIS
 - Insurance with both Credit and Market at 0% compared to 25% for IAIS
- It is possible that some correlation factor changes would increase RBC while others would decrease RBC. The objective is to improve differentiation between companies with concentration vs. diversification of risks.

Next Steps

10

- Analysis of historical data
- Complete a correlation structure to include all existing C-factors
- Consider structure that could reflect correlation within C-1o
- Develop preliminary correlation factors and rationale for discussion
- Assess potential impacts

Questions

11

- Paul Navratil, MAAA, FSA
Chairperson, Life Capital Adequacy Committee

- Amanda Barry-Moilanen
Life Policy Analyst
American Academy of Actuaries
barrymoilanen@actuary.org

MEMORANDUM

TO: Philip Barlow, Chair of the Life Risk-Based Capital (E) Working Group
FROM: Dale Bruggeman, Chair of the Statutory Accounting Principles (E) Working Group
Kevin Clark, Vice Chair of the Statutory Accounting Principles (E) Working Group
DATE: February 29, 2024
RE: Collateral Loan Reporting Changes – SAPWG Actions Feb. 20, 2024

On Feb. 20, 2024, the Statutory Accounting Principles (E) Working Group (SAPWG) considered agenda item 2023-28: *Collateral Loan Reporting*, which proposed to expand collateral loan disclosures and Schedule BA reporting lines in accordance with the type of collateral supporting the collateral loan pursuant to SSAP No. 21R—*Other Admitted Assets*. During this call the Working Group took the following actions:

- 1) Adopted a new disclosure to detail the collateral loans admitted and nonadmitted by type of underlying collateral. This disclosure is required for year-end 2024 and a blanks proposal is being sponsored to facilitate data capturing for 2024 reporting.
- 2) Exposed revised Schedule BA reporting lines to require allocation of collateral loans based on the underlying collateral. With this exposure, the Working Group specifically requested comments from regulators and industry on whether collateral loans backed by certain types of collateral should flow through the Asset Valuation Reserve (AVR) for risk-based capital (RBC) impact. With this request, a referral was directed to the Life Risk-Based Capital (E) Working Group (LRBCWG) to request feedback on the proposed reporting lines and the potential to map certain collateral loans to AVR for RBC purposes.

With the discussion that occurred on Feb. 20, 2024, it was identified that collateral loans do not currently flow through AVR. From historical review, the exclusion from AVR has been attributed to a 1990 intercompany survey where it was identified that collateral loans were very small risks and a small proportion of total portfolio value. Collateral loans were originally captured on Schedule C, and when that schedule was eliminated and the reporting moved to Schedule BA, a change to flow through AVR was not incorporated. Currently all investments reported as collateral loans, regardless of the underlying collateral that supports the loan, receive the same 0.0680 life RBC factor charge.

It has been identified that some reporting entities are currently reporting certain collateral loans in the Schedule BA “non-registered private fund” reporting category allocated by underlying collateral so that they flow through AVR for RBC impact. The discussion on Feb. 20, 2024, noted that this reporting causes consistency concerns, and the regulator’s need for comparable financial information is paramount in determining an insurer’s financial condition.

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To improve overall reporting, the SAPWG is sponsoring blank changes to eliminate and clarify the purpose of certain reporting lines on Schedule BA. These changes include eliminating the “non-registered private fund” category and clarifying that such funds shall be reported in the “joint ventures, partnerships, or limited liability companies” reporting category. The sponsored blank revisions further clarify the types of investments permitted for reporting in certain categories with inclusion of an explicit statement that investments shall be reported in the appropriate dedicated reporting line, and if such a line does not exist for a specific investment, it shall be reported as an “Any Other Asset.” These changes are captured in the Blanks (E) Working Group proposal 2023-12BWG that also details the new reporting lines for the non-bond debt securities in response to the bond project. This proposal is exposed for comment until April 23, 2024.

Although efforts to improve consistent reporting are underway, with the overall increase in collateral loans and actions by industry to report certain loans in categories that flow through AVR to reflect the underlying asset risk, this referral requests feedback from the LRBCWG on the allocation of collateral loans through AVR. Key elements to highlight for LRBCWG potential consideration include:

- An approach that maps reporting of certain collateral loans through existing AVR categories may not necessitate extensive RBC changes. Rather, specific reporting lines would map through the blank reporting process to the identified AVR category and flow through automatically to the RBC schedule. If this approach is taken, the RBC revisions could potentially be limited to clarifying the items that continue to flow through to the existing collateral loan line.
- If an approach to map certain collateral loans through existing AVR categories is supported, information is requested on which collateral loans should be given this treatment. For example, information received from industry has indicated that “warehouse loans¹” with mortgage loan collateral have been reported as “non-registered private funds” with underlying characteristics of mortgage loans. This reporting facilitates a “look-through” RBC treatment whereby the mortgage RBC criteria is applied to the mortgage loans underlying the warehouse loan. Although this reporting has likely resulted in a more desirable RBC impact than the collateral loan classification, industry has continued to report loans backed by LLC interests as collateral in the collateral loan category, where look-through treatment would be less favorable. By reporting these items as collateral loans, the RBC factor was 0.0680 in comparison to a 0.3000 charge that could occur² if reported based on the underlying collateral. Ultimately, feedback is requested on whether loans backed by certain types of collateral should be treated differently through AVR as well as comments on when loans backed by certain types of collateral should be treated differently than other collateral loans.
- The existing collateral loan RBC factor is believed to have been established without much analysis, but rather reflects a blended rate of RBC charges. This was likely supported due to the historical small risk and population of collateral loans. From assessments of 2022 data, collateral loans make up a significant portion of assets at some companies, and it is anticipated that a significant number of collateral loans are backed by LLC interests. Unfortunately, underlying collateral data is limited to what is discernable from a review of the description captured in Schedule BA and only captures what was reported as collateral loans and not within another reporting category. The Working Group’s adoption of a new 2024 disclosure and reporting clarifications shall assist in providing improved information on the population of collateral loans,

¹ For reference, a “warehouse loan” is a loan to an originator of financing products (e.g. mortgage loans, consumer loans, middle market corporate loans, etc.) that is secured by the assets being originated. It is a temporary form of financing often used to “warehouse” the underlying collateral until sufficient scale is achieved to allow the collateral to be securitized.

² It is worth noting that there would typically be some level of overcollateralization when comparing the amount of loan and the underlying value of the LLC collateral.

and the underlying collateral that backs loans if the LRBCWG believes it is appropriate to complete a more detailed analysis of this asset category for RBC purposes.

Consistent with the prior referral dated Jan. 17, 2024, the SAPWG will continue to keep the LRBCWG informed of the discussions involving collateral loans. The proposed reporting lines for collateral loans are exposed at SAPWG until April 19, 2024, and are detailed within. As noted, this exposure specifically requests comments on whether collateral loans backed by certain types of collateral should flow differently through AVR for RBC impact. The SAPWG will share information received from this exposure with the LRBCWG to assist with further discussion, but also welcomes initial responses from the LRBCWG on this inquiry as well as the proposed reporting lines.

If you have any questions, or would like to further discuss, please contact the Statutory Accounting Principles (E) Working Group chair or vice chair (Dale Bruggeman, or Kevin Clark), or NAIC staff Julie Gann (jgann@naic.org).

February 20, 2024, SAPWG Exposed Schedule BA Collateral Loan Reporting Changes:

Collateral Loans – Reported by Qualifying Investment Collateral that Secures the Loan

Bonds and Asset-Backed Securities (SSAP No. 26R & SSAP No. 43R)

Unaffiliated.....
 Affiliated.....

Preferred Stocks (SSAP No. 32R)

Unaffiliated.....
 Affiliated.....

Common Stocks (SSAP No. 30R)

Unaffiliated.....
 Affiliated.....

Mortgage Loans (SSAP No. 37R)

Unaffiliated.....
 Affiliated.....

Real Estate (SSAP No. 40R)

Unaffiliated.....
 Affiliated.....

Joint Venture, Partnerships or Limited Liability Companies (SSAP No. 48)

Fixed Income Investments (Unaffiliated)
 Fixed Income Investments (Affiliated)

Common Stocks (Unaffiliated)
 Common Stocks (Affiliated)

Real Estate (Unaffiliated)
 Real Estate (Affiliated)

Mortgage Loans (Unaffiliated)
 Mortgage Loans (Affiliated)

Other (Unaffiliated)
Other (Affiliated)

Other Investment Category

Cash, Cash Equivalent and Short-Term Investments (Unaffiliated)
Cash, Cash Equivalent and Short-Term Investments (Affiliated)

Other Long-Term Invested Assets (Unaffiliated)
Other Long-Term Invested Assets (Affiliated)

Non-Collateral Loans

Related Party / Affiliated Loans.....
All Other Non-Collateral Loans.....

Cc: Julie Gann, Robin Marcotte, Jake Stultz, Jason Farr, Wil Oden, Crystal Brown, Dave Fleming, Eva Yeung, Maggie Chang



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Non-Variable Annuity Principle-Based Reserving (PBR) Framework Update

Annuity Reserves & Capital Subcommittee

September 6, 2023

Academy Webinar

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Agenda

- **Intro and General Overview**
 - Chris Conrad, MAAA, FSA, Chairperson, Annuity Reserves & Capital Subcommittee
- **C-3 Risk-Based Capital**
 - Link Richardson, MAAA, FSA, CERA - Member, Economic Scenario Subcommittee and Annuity Reserves & Capital Subcommittee
- **Updated Draft Framework**
 - Andrew Jenkins, MAAA, FSA, Co-Vice Chairperson, Annuity Reserves & Capital Subcommittee
 - Bruce Friedland, MAAA, FSA, Co-Vice Chairperson, Annuity Reserves & Capital Subcommittee
- **Q&A**

Timeline

- **Timeline is tentative due to dependency on Generator of Economic Scenarios (GOES) Initiative**
- Fall 2023: Exposure of Standard Projection Amount; VM-31 Drafting Group Meetings and Exposure
- Early 2024: Discussion of Comments Received on Exposures; Field Test Prep
- Summer 2024: Field Test
- Fall 2024/Early 2025: Compile and Discuss Results of Field Test; Resolve Outstanding Items from Field Test
- Early 2025: Life Actuarial (A) Task Force (LATF) Discussion of Comments
- Mid 2025: LATF, Life Insurance and Annuities (A) Committee and Exec and Plenary Adoption
- **Target 1/1/26 Effective Date**

Requirements for
Principle-Based Reserves for
Non-Variable Annuities—
An Overview of the Current Draft

Annuity Reserves & Capital Subcommittee

Academy **Webinar**

Scope and Effective Date

Products In-Scope

Account Value Based Annuities

- Deferred Annuities (SPDA & FPDA)
- Multi-Year Guarantee Annuities (MYGA)
- Fixed Indexed Annuities (FIA)
- Two-tiered Annuities
- Guarantees/Benefits/Riders on Contracts in scope

Payout Annuities

- Single Premium Immediate Annuities (SPIA)
- Deferred Income Annuities (DIA)
- Term certain Payout Annuities
- Pension Risk Transfer Annuities (PRT)
- Structured Settlement Contracts (SSC)
- Longevity Reinsurance

Products Out-of-Scope

- Guaranteed Investment Contracts (GICs)
- Synthetic GICs
- Stable Value Contracts
- Funding Agreements
- Contracts or benefits that are subject to VM-21 (such as variable annuities and RILAs)

Contract Application

- New Business: 3yr optional implementation period
- Valuation dates on or after January 1, 2026?

Reserve Methodology

- A. Aggregate Reserve:** The sum of the Stochastic Reserve (SR), the Deterministic Reserve (DR) for contracts utilizing the Deterministic Certification Option, plus the reserve for contracts valued under VM-A and VM-C that satisfy the Exclusion Test and do not elect to calculate the SR.
- B. Impact of Reinsurance:** Components of the Aggregate Reserve shall be determined net of any reinsurance cash flows meeting statutory requirements to qualify as reinsurance. A pre-reinsurance reserve will also need to be calculated.
- C. The Standard Projection Amount (SPA):** The Academy could support an SPA disclosure.
- D. The SR :**
1. The SR shall be determined based on asset and liability projections over a broad range of stochastically generated projection scenarios using prudent estimate assumptions.
 2. The SR amount for any group of contracts shall be determined as CTE70 of the scenario reserves.
 3. The reserve may be determined in aggregate across various groups of contracts within each Reserving Category as a single model segment.
 - a. Groups of contracts within different Reserving Categories may not be aggregated together in determining the SR.
 - b. The Reserving Categories are classified as: i. Payout Annuities ii. Accumulation Annuities, and iii. Longevity Reinsurance

Reserve Methodology (cont.)

- E. Stochastic Exclusion Test:** Passing contracts may be valued using the requirements of VM-A and VM-C. Contracts with significantly different risk profiles should not be combined when performing the exclusion testing.
- F. Allocation of the Aggregate Reserve to Contracts:** The allocation methodology is described in Section 13 and is based on an Actuarial PV method. The approach uses a “CSV plus” methodology where any additional amounts would be added to a contract’s existing cash surrender value (CSV).
- G. Prudent Estimate Assumptions:** The company shall establish prudent estimate assumptions for each risk factor. Relevant experience shall be reviewed annually and assumptions updated as needed.
- H. Approximations, Simplifications, and Modeling Efficiency Techniques:** “proposed language” ... A company may use simplifications, approximations, and modeling efficiency techniques to calculate the SR and/or the additional standard projection amount required by this section if the company can demonstrate that the use of such techniques does not understate the reserve by a material amount, and the expected value of the reserve calculated using simplifications, approximations, and modeling efficiency techniques is not less than the expected value of the reserve calculated that does not use them.

C-3 Methodology Considerations and Suggestions

Annuity Reserves & Capital Subcommittee

Academy Webinar

C-3 Methodology Considerations and Suggestions

Align C-3 Approaches between Phase 1 and Phase 2

- Existing differences in C-3 scenarios and metrics are a result of staggered implementation of C-3 phases
- Intent of 2015 C-3 Field Test was to converge scenarios and metrics. Convergence was deferred pending completion of VM-21
- Both Phase 1 and Phase 2 scenarios have acknowledged shortcomings. Moving to updated, consistent scenarios would improve assessment of C-3 risks
- Moving to consistent levels of conservatism in assumptions would produce better evaluations of aggregate legal entity risk
- Successive slides will describe differences and make suggestions for framework convergence. The intent of this deck is to suggest alternatives that would be practical to test in the next round of ESG field testing or in VM-22 field testing
- In general, the C-3 Phase 2 framework has been more recently reviewed and extensively tested. Thus, it should be the primary choice for convergent methodology, except as needed to accommodate products and models from the current or expanded Phase 1

Key differences between C-3 Phase 1 and Phase 2 frameworks

- 1) **Scope** – Fixed Annuities versus Variable Annuities
- 2) **Scenarios** – fixed 6.55% Median Reversion Point (MRP), versus much lower formulaic MRP
- 3) Weighted 92nd through 98th percentile **metric**, versus 25% of (CTE 98 minus reserve)
- 4) Cash Flow Testing (CFT) **models** versus Principle-Based Reserve (PBR) models
- 5) Expected **default costs** versus prescribed CTE 70 default costs. No Asset Valuation Reserve (AVR) in either Phase
- 6) CFT Moderately Adverse **assumptions** versus PBR Prudent Estimate assumptions
- 7) Formulaic **interim reserves** versus Working Reserve, originally Cash Surrender Value, now zero
- 8) One-year Treasury **discounting** versus Net Asset Earned Rate (NAER) or Direct Iteration
- 9) Factor-based **floor** versus floor on reserves but not on RBC

Scope Considerations

Include all products with significant Asset-Liability Management (ALM) risk, and possibly all material products

- Phase 1 currently applies to all Non-Indexed Fixed Annuities, including group and individual, and deferred and payout. VM-22 is being expanded to include Fixed Indexed Annuities. Additional considerations around prospective application of VM-22 will be discussed in the Models section
- Phase 2 includes all Variable Annuities, both new and existing business
- Conceptually, it would make sense to require C-3 testing for all products that fail the Stochastic Exclusion Test (SET) for reserves. Allowing and even encouraging the inclusion of products that pass an SET would be consistent with the RBC objective of developing aggregate legal entity risk measures and would also be consistent with the scope of Cash Flow Testing (CFT). In light of the deferral of the C-3 Phase 3 recommendation for Life products, extending C-3 testing to include all Life products may need to be a future effort
- Phase 1 does include Single Premium Life, presumably due to concerns about ALM risk. This condition could be retained, pending future work on expanding the scope to include all products

Scenario and Metric Considerations

Align Scenarios Across Phases

- Phase 1 scenarios have a high, fixed Median Reversion Point (MRP) and thus are light on low interest rate scenarios
- Phase 1 scenarios do not include equity returns
- Phase 2 scenarios have a formulaic MRP that is heavily weighted toward very recent rates. In conjunction with the model structure and parameters, overall scenario volatility is too low and does not cover a wide enough range of interest rates
- Updated stochastic scenarios will likely address all of these issues

Align Metrics

- The Weighted 92nd through 98th percentile metric of Phase 1 was found to produce very similar results to the then current CTE 90 metric of Phase 2, in the 2015 Field Test
- The newer 25% of (CTE 98 minus reserve) of Phase 2 was selected at least partly to ensure that hedging would be more consistently beneficial to C-3 requirements, versus the prior CTE 90 metric
- Updated interest rate scenarios may reasonably be expected to increase Phase 1 requirements. Moving to the 25% of (CTE 98 minus reserve) metric could help both to mitigate a scenario-based increase and encourage hedging

Model Considerations

Allow use of both CFT and PBR models

- Phase 1 uses CFT models, while Phase 2 uses PBR models
- Since PBR does not yet apply to products in C-3 Phase 1 testing, companies will generally not have PBR models for these products. Thus continuing the use of CFT models for Phase 1 products is a practical choice
- Prospective application of VM-22 updates will lead to the creation of PBR models for new business but will not require the creation of PBR models for existing business
- It is likely that very few PBR models have interim reserve calculation capabilities, especially since Working Reserves are now set to zero. This topic will be discussed further on the Interim Reserve slide
- Some adjustments to assumptions may be necessary to improve alignment of the levels of conservatism in PBR and CFT models. Possible adjustments will be discussed on upcoming slides

Default Cost, AVR and C-1 RBC Considerations

Align Default Cost Treatment Across Phases

- Phase 1 uses Expected Default Costs. The exclusion of the AVR was considered to add appropriate conservatism, as AVR was commonly used in CFT when Phase 1 originated. AVR is now commonly excluded from CFT, in light of the RBC change to exclude from Total Adjusted Capital (TAC) any AVR used in CFT
- Phase 2 uses PBR CTE 70 default costs and also excludes AVR
- Recent C-1 RBC updates essentially assume that reserves cover halfway between Expected and CTE 70 Default Costs. Thus C-3 Phase 2 is double-counting the portion of CTE 70 Default Costs that is covered in C-1 RBC
- Changing C-3 Phase 1 to use CTE 70 Default Costs would increase the double-counting. Allowing the use of assets backing allocated AVR, in C-3 testing, could mitigate this double-counting until C-1 RBC charges are updated to assume that reserves or C-3 RBC requirements cover CTE 70 Default Costs
- In summary, the suggestion is to use CTE 70 Default Costs in all C-3 testing, and to include assets backing the AVR until such time as C-1 RBC is updated
- Double-counting of RBC on general account equity-oriented assets included in C-3 testing could be addressed in a similar manner, by including assets in C-3 testing to back the allocated AVR for the relevant equity-oriented assets

Moderately Adverse and Prudent Estimate Assumptions

Align Level of Conservatism Across Phases

- Phase 1 uses CFT models, which use moderately adverse assumptions. ASOP No. 22 defines Moderately Adverse Conditions as “Conditions that include one or more unfavorable, but not extreme, events that have a reasonable probability of occurring during the testing period.” There is no explicit level of conservatism defined, but moderately adverse is often viewed as about one standard deviation, or about an 84th percentile for a Normal distribution
- Phase 2 uses PBR Prudent Estimate assumptions. Where explicitly defined, these assumptions are set at a CTE 70 level of conservatism. This is about an 88th percentile for a Normal distribution and is a still higher percentile for risk elements with skewed distributions, such as default costs
- Since default costs would use CTE 70 assumptions and equity returns would be based on stochastic scenarios, a required statement that other Phase 1 assumptions are at or above an 84th percentile level of conservatism would likely be adequate for CFT models to be appropriate for updated C-3 Phase 1 purposes

Discounting

Recommend Phase 2 approach

- Phase 1 uses one-year Treasury rate discounting. Reinvestment strategies are typically longer durations and lower quality, both of which tend to increase yields. Thus Phase 1 present values are likely to be larger than the amount of additional assets needed to eliminate a given deficiency
- Phase 2 allows discounting at Net Asset Earned Rates (NAERs), which likely produces better estimates of the amount of additional assets needed to eliminate a deficiency than does Phase 1 discounting
- Phase 2 also allows Direct Iteration, which specifically solves for the amount of additional assets needed to eliminate a deficiency. However, Direct Iteration complicates the determination of present values for projection points other than the one with the largest deficiency.
- Suggestion is to use Phase 2 discounting rules and develop present value determinations for Direct Iteration

Floors

Possible future enhancements

- Phase 1 has a floor based on an assumed duration mismatch and an assumed interest rate change. Companies can qualify for half of the factor-based floor with adequate C-3 testing results
- Phase 2 has a Standard Projection Amount floor on reserves. C-3 requirements can be zero with adequate testing results
- Should an RBC floor be developed for Phase 2, or should the existing floor be eliminated for Phase 1?

Next Steps

- . Discuss suggestions and develop them into recommendations for desired topics
- . Create field test instructions consistent with finalized recommendations, to be used in the upcoming fixed annuity reserve and capital field testing currently scheduled for 2024

Appendices

- . Practical Difficulties for PBR Interim Reserves
- . Areas for Future Research and Enhancements

Interim Reserves

Practical difficulties exist

- Many companies do not have functionality in their PBR models to calculate interim reserves
- VM-22 updates may include consideration of this topic
- Most companies run 1,000 scenarios for VM-21. Producing interim reserves will likely require significant reductions in numbers of scenarios, especially for the "inner loop" where interim reserves would be calculated, but possibly also for the "outer loop" in which valuation date reserves are determined
- The time horizon for C-3 RBC testing is significantly longer than for other RBC elements, often 50 years or more. Reducing this to perhaps 10 years, with sound reserve estimations, could help to facilitate the production of interim reserves and thus interim surplus positions
- The long time horizon of C-3 testing creates an implicitly higher level of conservatism over shorter time horizons. The lack of interim reserves in Phase 2 may tend to offset some of this excess conservatism
- It may be necessary or desirable to continue the separation of C-3 Phases until progress is made on interim reserve estimations. Models that produce interim reserves could be included in Phase 1, while models without interim reserves could be in Phase 2. A 10 year framework could be tested now for C-3 Phase 1 and in the future for C-3 Phase 2

Areas for Future Research and Enhancements

Possible topics:

- . Correlation treatment
- . Interim reserves for PBR products
- . Practical techniques to produce sound estimates of stochastic results for large numbers of scenarios
- . Expansion to include Life products

Questions?

Please enter your question(s) in the
"Ask A Question" box on your screen.

Thank You

For more information, please contact

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