

Date: 8/17/20

LIFE RISK-BASED CAPITAL (E) WORKING GROUP
Friday, August 21, 2020
12:00 p.m. ET / 11:00 a.m. CT / 10:00 a.m. MT / 9:00 a.m. PT
ROLL CALL

Philip Barlow, Chair	District of Columbia	John Robinson	Minnesota
Steve Ostlund	Alabama	William Leung	Missouri
Perry Kupferman	California	Rhonda Ahrens	Nebraska
Deborah Batista	Colorado	Seong-min Eom	New Jersey
Wanchin Chou	Connecticut	Bill Carmello	New York
Gilbert Moreau	Florida	Andy Schallhorn	Oklahoma
Vincent Tsang	Illinois	Mike Boerner	Texas
		Tomasz Serbinowski	Utah

NAIC Support Staff: Dave Fleming

AGENDA

1. Hear an Update from the American Academy of Actuaries' C-3 Work Group—*Philip Barlow (DC)* Attachment 1
2. Consider Adoption of Revised Newsletter—*Philip Barlow (DC)* Attachment 2
3. Continue Discussion of Industry Request for Risk-Based Capital Mortgage Reporting Guidance—*Philip Barlow (DC)* Attachment 3
4. Discuss Any Other Matters Brought Before the Working Group—*Philip Barlow (DC)*
5. Adjournment

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C-3 Work Group Update

Link Richardson, MAAA, FSA
Chairperson, C-3 Work Group
American Academy of Actuaries



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Discussion Topic

- The Academy C-3 Life and Annuities Work Group (C-3 WG) has a request from the NAIC Life Risk-Based Capital (E) Working Group (LRBC) to “Update the current C-3 Phase I or C-3 Phase II methodology to include Indexed Annuities.”
- The C-3 WG has developed high-level conceptual recommendations with respect to this request and would like to discuss them with the Life Risk-Based Capital Working Group (LRBC) before proceeding to develop the specifics of the recommendations.



Discussion Outline

- 2015 C-3 Phase 1 (C-3 P1) Field Test Recap
- Highlights of C-3 Phase 2 (C-3 P2) changes since 2015
- Key remaining differences—C-3 P1 versus C-3 P2
- Scenario considerations
- High-level recommendations and steps
- Analysis considerations
- Key questions for LRBC



C-3 Phase 1 Field Test Recap

- 2015 Field Test used 9/30/2014 models and scenarios, and essentially tested Phase 1 in the then-current C-3 Phase 2 framework
- Participation was made mandatory for large companies via Risk-Based Capital (RBC) Instructions, with results due in the February RBC filing
- Tested 200 “VM-20” interest rate scenarios
 - Key difference was Mean Reversion Point (MRP) of 4.00%, down from 6.55%
 - Resulting C-3 requirements were significantly higher, likely due to reinvestment effects for long-duration products, from lower MRP
- Also tested conditional tail expectation (CTE) 90 metric, versus 92nd through 98th percentile (with heaviest weight at 95th)
 - Change in metric made little difference to results



C-3 Phase 2—Highlights of Changes since 2015 Field Test

- Interest rate scenarios now prescribed
- CTE 90 metric changed to 25% of (CTE 98 minus CTE 70), from same distribution, except for tax adjustment
- C-3 Phase 2 was silent on default costs before the Field Test. The use of expected defaults and no AVR for Phase 2 was made explicit at the time of the Field Test. Default costs are now prescribed using VM-20 assumptions at CTE 70 levels
- RBC Standard Scenario eliminated, but Reserve Additional Standard Projection Amount (ASPA) doesn't reduce RBC
- Working Reserve (WR) set to zero, instead of Cash Surrender Value (CSV)
- Lower Error Factors allowed for implicit method of reflecting hedging
- Smoothing now applies to RBC instead of (CTE 90 – CSV)
- SSAP 108 allows hedge accounting for derivatives hedging VA guarantees



C-3 Phase 1 Versus Updated Phase 2—Key Differences

- ❑ C-1 charges at expected levels vs. CTE 70
- ❑ Economic Scenario Generator (ESG) Mean Reversion Point (MRP) 6.55% vs. formulaic currently 3.50%
- ❑ Capital requirement based on approximately CTE 90 vs. 25% of (CTE 98 minus CTE 70)
- ❑ Surplus in projections based on reserves vs. WR of zero
- ❑ Minimum RBC is 50% of factor-based amount vs. implicit floor. As a practical matter, $C3P2 = 25\% \text{ of } (CTE 98 \text{ minus } CTE 70)$ will always be positive, because the values come from the same distribution.



Scenario Considerations

- The 2015 Field Test specified 200 identical interest rate scenarios for all companies. Most companies run 1,000 scenarios for C-3 P2. A two-dimensional stratification (interest rates and equity returns) was developed for the 2015 Field Test, but not used because Indexed Annuities were excluded, which eliminated the need for equity scenarios.
- Use of the two-dimensional 200-scenario framework is recommended, and would allow for comparisons to both the current 50-scenario C-3 P1 framework and the typical 1,000 scenarios for C-3 P2.



High-Level Recommendations

- Repeat the 2015 C-3 Phase 1 Field Test, in 2021 for 9/30/2020 models, but using the updated C-3 Phase 2 framework and including Indexed Annuities along with all products currently in scope for C-3 P1.
- Continue mandatory participation, but change the timing to occur after year-end work is largely complete. Results could be due with the June RBC filing instead of February.
- Model hedging as it is modeled for cash flow testing (CFT), until VM 22 hedging guidance is available.
- Develop specific recommendation for treatment of reserves not equal to a CTE 70 basis. The Total Asset Requirement (TAR) framework is suited to handling differing levels of reserve conservatism but is complicated by the change to 25% of (CTE 98 minus CTE 70).
- Consider a more comprehensive PBR and C-3 Field Test including all products, once a new ESG is available.



Field Test Steps

- Gather C-3 Phase 1 model results from 9/30/2020, under the current framework, as a basis for comparison
- Run all 200 scenarios instead of just 50. Compute the current metric and CTE 98, 90 and 70 metrics for each step
- Run 200 scenarios from the current NAIC ESG, with two-dimensional stratification (interest rates and equity returns)
- Use CTE 70 default costs from VM-20
- Use VM-21 discounting or direct iteration
- Set Working Reserves to zero
- Run Indexed Annuities incorporating steps above and using CFT approaches for other remaining elements such as hedging
- Some companies may be able to run 1,000 scenarios for the final step, as well as the 200
- Analyze results and develop a final recommendation



Results Analysis Considerations

- Regulators and the Academy WG should develop a useful set of filing requirements and questions to facilitate and elicit participants' comments on their own results. For example:
 - Results by model or product group would be helpful to analysis efforts.
 - Present values of ending surplus can be a useful indicator of the potential margin before deficiencies would develop, for scenarios where there is no deficiency.
 - Results with projected reserves, and with working reserves equal zero, can help with analysis of the significance of this choice.
- Confidentiality was provided via the RBC filing approach in 2015, and would likely be suitable again, if NAIC staff and regulators can perform work on summarization and aggregation of results.
- If the High-Level Recommendations and Analysis Considerations are acceptable, the Academy C-3 WG can begin drafting of proposed Instructions.



Key Remaining Questions

- Should Field Test be mandatory?
- Who will collect and analyze submissions, and how will confidentiality be addressed?
- How to resolve differences among C-3 Phase 1 and Phase 2 default costs and C-1 Bond proposal Risk Premia?
- How to resolve differences between VM-21 and VM-22?
- Are formulaic reserves appropriate for use in the C3 calculation: 25% of (CTE 98 minus Reserve)?



Questions?

- Link Richardson, MAAA, FSA
Chairperson, C-3 Work Group
American Academy of Actuaries

- Contact: American Academy of Actuaries – Devin Boerm,
Boerm@actuary.org



NAIC Life Risk-Based Capital Newsletter

August 2020

Volume 26



What RBC Pages Should Be Submitted?

For year-end 2020 life and fraternal risk-based capital (RBC), submit hard copies of pages LR001 through LR049 to any state that requests a hard copy in addition to the electronic filing. Starting with year-end 2007 RBC, a hardcopy was not required to be submitted to the NAIC. However, a portable document format (PDF) file representing the hard copy filing is part of the electronic filing.

If any actuarial certifications are required per the RBC instructions, those should be included as part of the hard copy filing. Starting with year-end 2008 RBC, the actuarial certifications were also part of the electronic RBC filing as PDF files, similar to the financial annual statement actuarial opinion.

Other pages, such as the mortgage and real estate worksheets, do not need to be submitted. However, they still need to be retained by the company as documentation.

Bond Designation Structure

The Capital Adequacy (E) Task Force adopted proposal 2019-16-CA to incorporate the 20 designation categories for bonds into the life and fraternal RBC formula to be used in conducting an impact analysis study for year-end 2020 reporting during its April 30, 2020 conference call. The 20 bond designation categories were incorporated into the Bonds page (LR002), Asset Concentration page (LR010) and Off Balance Sheet Collateral page (LR017).

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Longevity Risk

As a result of the adoption of proposal 2019-13-L by the Capital Adequacy (E) Task Force on its April 30, 2020 conference call, changes developed by the Longevity Risk (E/A) Subgroup and recommended to the Life Risk-Based Capital (E) Working Group to implement the structure for a longevity risk charge were incorporated into the life RBC formula. On its June 30, 2020 conference call, the Task Force adopted the instructions with proposal 2020-06-L, which includes factors of zero for 2020. The structure adopted will provide information to be used in the ultimate determination of factors for 2021 reporting.

Capitation Tables

The Capital Adequacy (E) Task Force adopted proposal 2018-17-CA to capture the Capitation Tables electronically through the file submission of the life RBC formula during its June 28, 2019 conference call.

RBC Preamble

As a result of the adoption of proposal 2019-07-CA by the Capital Adequacy (E) Task Force at the 2019 Fall National Meeting, the Risk-Based Capital Preamble was added to the RBC instructions to provide a clear understanding of the purpose of RBC and goals of RBC as the Capital Adequacy (E) Task Force and RBC Working Groups review referrals and proposals.

Overview and Table of Contents

As a result of the adoption of proposal 2020-05-CA by the Capital Adequacy (E) Task Force during its June 30, 2020 conference call, the page iv instructions were modified to insert the word “Overview” in the page heading and the Table of Contents were modified to include only the page heading and delete references to the individual sections of the Overview.

C-3 Instructions and C-3 Guidance

As a result of the adoption of proposal 2020-03-L by the Capital Adequacy (E) Task Force during its 2020 Summer National Meeting, C-3 instructions specific to the yearend 2019 RBC filing were deleted and the associated guidance adopted.

RBC Forecasting and Instructions

The Life and Fraternal RBC forecasting spreadsheet calculates RBC using the same formula presented in the *2020 NAIC Life and Fraternal Risk-Based Capital Forecasting & Instructions for Companies*, and is available to download from [NAIC Account Manager](#). The *2020 Life and Fraternal Risk-Based Capital Forecasting & Instructions for Companies* publication is available for purchase in hardcopy or electronic format through the NAIC Publications Department. This publication is available on or about Nov. 1 each year. The User Guide is no longer included in the Forecasting & Instructions.

WARNING: The RBC Forecasting Spreadsheet CANNOT be used to meet the year-end RBC electronic filing requirement. RBC filing software from an annual statement software vendor should be used to create the electronic filing. If the forecasting worksheet is sent instead of an electronic filing, it will not be accepted and the RBC will not have been filed.

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Address corrections requested. Please mail the old address label with the correction to: NAIC Publications Department, 1100 Walnut Street, Suite 1500, Kansas City, MO 64106-2197. Phone: (816) 783-8300. Email: prodserv@naic.org.



August 18, 2020

Philip A. Barlow, FSA, MAAA
Chair, Life Risk-Based Capital (E) Working Group
National Association of Insurance Commissioners
1100 Walnut Street, Suite 1500
Kansas City, MO 64106-2197

Re: Industry Recommendation for RBC Reporting of 2020 NOI

Dear Mr. Barlow:

The Mortgage Bankers Associations (MBA)¹ and the American Council of Life Insurers (ACLI),² on behalf of our respective member insurers, respectfully submit to the Life Risk-Based Capital Working Group of the National Association of Insurance Commissioners (NAIC) the attached materials for upcoming August 21, 2020 call, in support of the Working Group's consideration of industry's proposal for RBC reporting of 2020 Net Operating Income (NOI).

We want to thank you and other regulators, and NAIC staff, for your considerable time and attention to this request. Please feel free to contact Bruce Oliver at boliver@mba.org or 202-557-2840 or Mike Monahan at mikemonahan@acli.com or 202-624-2324 for any additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Flood", written over a light blue horizontal line.

Mike Flood

A handwritten signature in black ink, appearing to read "Paul A. Graham", written over a light blue horizontal line.

Paul Graham

Attachment: Industry Recommendation for RBC Reporting of 2020 NOI

cc: Dave Fleming, NAIC Senior Insurance Reporting Analyst

¹ The Mortgage Bankers Association (MBA) is the national association representing the real estate finance industry, an industry that employs more than 280,000 people in virtually every community in the country. Its membership of over 2,300 companies includes all elements of real estate finance: mortgage companies, mortgage brokers, commercial banks, credit unions, thrifts, REITs, Wall Street conduits, 70 life insurance companies engaged in real estate finance, and others in the mortgage lending field. For additional information, visit MBA's website: www.mba.org

² The American Council of Life Insurers (ACLI) is the leading trade association driving public policy and advocacy on behalf of the life insurance industry. 90 million American families rely on the life insurance industry for financial protection and retirement security. ACLI's member companies are dedicated to protecting consumers' financial wellbeing through life insurance, annuities, retirement plans, long-term care insurance, disability income insurance, reinsurance, and dental, vision and other supplemental benefits. ACLI's 280 member companies represent 94 percent of industry assets in the United States. Learn more at www.acli.com

INDUSTRY RBC RECOMMENDATION FOR 2020 NOI

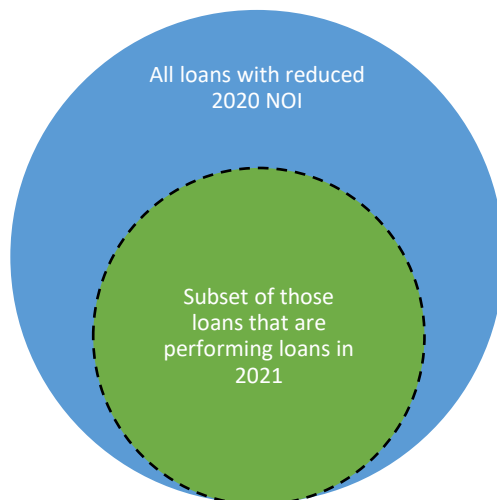
I. INTRODUCTION

Owners of certain properties that secure mortgage loans are experiencing decreases in 2020 income, including rent income, from mandatory shutdowns and other governmental actions taken to flatten the pandemic curve, and other impacts of the COVID-19 pandemic. This is especially the case for properties in the retail and hospitality sectors. As a result, their 2020 Net Operating Income (NOI) may be substantially lower than their 2019 NOI.

For at least some of those properties, however, that drop in income and NOI will prove to be temporary. As a result, loans secured by those properties will be performing loans in 2021, despite the 2020 drop in NOI.

The current treatment of 2020 NOI in life company RBC calculations for commercial mortgage loans (CMLs) does not contemplate such recovery and so it would generate an increase in RBC for loans that have recovered from 2020 that is not commensurate with their credit risk. Industry developed a proposed adjustment to the RBC reporting of 2020 NOI to better align RBC requirements for this set of loans with their credit risk in 2021, 2022, and 2023.

Notably, the proposal is intended to provide relief only to loans that were performing loans prior to the pandemic and that both (1) suffer a drop in NOI in 2020, and (2) are performing loans in 2021. The proposal is intended not to mask or shelter the increased riskiness of loans that suffer a severe drop in 2020 NOI that are **not** performing loans in 2021 or later years (e.g., loans that have become delinquent).



The proposal is designed to provide meaningful benefit only loans that suffer from reduced NOI for 2020 and are performing loans in 2021, 2022, and 2023.

II. DECISION ITEM: INDUSTRY RECOMMENDATION

To achieve the objectives described above, industry proposes the following adjustment to the RBC reporting of 2020 NOI:

- *Where RBC Reporting Instructions specify 2020 NOI as an input into the calculation of Rolling Average NOI for 2021, 2022, and 2023 RBC reporting, use the greater of—*
 - *2020 NOI; or*
 - *85% of 2019 NOI.*

INDUSTRY RBC RECOMMENDATION FOR 2020 NOI

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III. BACKGROUND: NOI and RBC reporting

NOI is the net of all operating income from a property, less all operating expenses. Operating expenses excludes principal and interest payments on loans.

For performing loans, the CM category is based on a matrix of Debt Service Coverage (DSC) and Loan to Value (LTV). NOI affects RBC reporting because NOI is an element of DSC.

$$DSC = \frac{\text{Net Operating Income (NOI)}}{\text{RBC Debt Service}}$$

In 2013, regulators determined to dampen the direct impact of changes in NOI on RBC reporting by adopting a weighted rolling-average approach to applying NOI values, as follows:

- 50% of preceding year NOI
- 30% of next preceding year NOI; and
- 20% of next preceding year NOI.

IV. SUPPORT**A. The proposal would not shelter bad loans.**

Regulators have raised concerns about whether the proposal would shelter or mask bad loans. The hypothetical scenarios below illustrate that the proposal would provide limited relief to loans that have recovered from 2020 – and that it also would not shelter loans that have not recovered from 2020.¹ That is, loans that are delinquent would receive no benefit from the proposed adjustment to 2020 NOI.

Scenario 1: \$10 million CM1 loan with 25% reduction in 2020 NOI

2021 loan status	2021 RBC without adjustment	2021 RBC with adjustment
Performing loan	1.75%	0.90%
Delinquent – not in foreclosure	18.00%	18.00%
Delinquent – in foreclosure	23.00%	23.00%

Assumes 60% LTV loan with 1.70x starting debt service ratio falling to 1.44x with adjustment and 1.27x without adjustment.

Scenario 2: \$10 million CM2 loan with 50% reduction in 2020 NOI

2021 loan status	2021 RBC without adjustment	2021 RBC with adjustment
Performing loan	3.00%	1.75%
Delinquent – not in foreclosure	18.00%	18.00%
Delinquent – in foreclosure	23.00%	23.00%

Assumes 60% LTV loan with 1.25x starting debt service ratio falling to 1.06x with adjustment and 0.62x without adjustment.

¹ These are simplified hypothetical scenarios. Other factors, e.g., 2018 and 2019 NOI amounts, would affect results.

INDUSTRY RBC RECOMMENDATION FOR 2020 NOI
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B. The proposal would increase aggregate RBC requirements.

Regulators have expressed a concern that the proposal might ignore the impacts of reduced 2020 NOI. While the scenarios above illustrate how the proposed adjustment can provide a benefit to individual loans, not all loans will necessarily benefit in this way. That is, while in many cases, the adjustment would result in no increase in RBC, in other cases, loans would be subject to a large increase in RBC despite the adjustment. The difference in impacts across loans would be a function of how close any loan is to the threshold to the next CM category (e.g., a CM1 loan (0.9%) that is close to the threshold for CM2 may become a CM2 loan (1.75%) despite the NOI adjustment).

To determine the aggregate RBC impact of the impacts across individual loans, industry asked companies to apply a hypothetical 15 percent reduction in NOI across their entire respective portfolio. One way to think about this exercise is to view it as a rough estimate of the RBC impact of a 15% reduction in NOI to an “average” life company commercial mortgage.

Specifically, companies were asked to apply a hypothetical 15 percent NOI shock across their entire mortgage portfolios. Companies were asked to provide their best estimates of actual 2020 RBC levels, and of hypothetical 2020 RBC levels if all property 2020 NOIs declined 15% from their 2019 levels.

Based on reporting representing nearly 25 percent of CML outstanding, for the average loan for which NOI is reduced by 15 percent, the average RBC capital charge would increase an average of about 8 percent. This indicates that the proposal to limit the 2020 NOI shock to 15 percent NOI for loans would still generally result in an aggregate increase in CML RBC in the range of about 8 percent, for loans subject to the proposed 85 percent floor, and so would effectively impose an additional RBC charge for the 2020 reduction in NOI.

C. Quarterly NOI data is not readily available for RBC purposes.

In response to regulator questions in the Working Group call of July 30 about the feasibility of developing a proposed treatment of 2020 NOI based on quarterly NOI data, industry conducted a survey to determine the ready availability of such data.

The survey asked for the number of loans each insurer held in portfolio and approximately how many of those loans require the borrower to provide, and the company routinely collects, quarterly operating statements.

Responses by 27 companies, with a total of approximately 23,000 loans, showed that quarterly operational information is both required and routinely collected on only about 7 percent of loans outstanding. Accordingly, any approach that relied on the use of quarterly NOI would not be operationally feasible for the industry.

IV. CONCLUSION

Industry believes the proposed adjustment to 2020 NOI is necessary to strike the right balance of preventing RBC from overstating the credit risk of a loan that has recovered from a reduced NOI in 2020, and recognizing the increased credit risk of the loans that have not recovered from a reduced NOI in 2020.

If large numbers of properties recover strongly and remain financially strong in 2021, the adjustment may apply to a relatively large pool of loans. Alternatively, if smaller numbers of those properties recover, the adjustment would apply to a smaller pool of loans.