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Viewpoint

September 2021

ASSET MANAGEMENT | WHITE PAPER

Evolutionary, Not Revolutionary: The Looming Change in Bond C1 Factors for Life Insurers

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Key Points:

- Proposed changes in C1 factors for bonds and the portfolio adjustment factor (PAF) will lower risk-based capital (RBC) ratios[1] but the industry overall is well capitalized and should be able to sustain its performance.
- Companies with less RBC formula diversification, smaller or lower-rated portfolios, and lower capital levels will likely be more adversely impacted by the coming change.
- Changes to the C1 charges are still driven by nationally recognized statistical rating organizations (NRSROs), likely resulting in insurers pursuing yield per NRSRO rating and potentially encouraging insurers to increase their investment in less liquid securities, structured securities, etc. and any other asset offering higher capital-adjusted yields.
- The increased complexity may benefit life insurers that incorporate a more holistic approach to investment strategy, inclusive of cash flow and target RBC levels.

Editor's Note: This Viewpoint replaces an earlier version and reflects updated fixed income capital charges.

RBC Changes Notable, But Holistic Investment Strategy Remains Paramount

After nearly a decade of wrangling and negotiating it appears that new credit charges for life insurers are fast approaching. For life insurers, it is time to think through the resulting implications for the industry as well as their respective investment strategies.

New proposed levels for credit charges will impact the capital needed for many fixed income investments, in some cases lowering charges but increasing for many of them. For select investments this impact is quite meaningful, such as A3-rated bonds increasing from 0.39% to 1.02%. While we do not anticipate this will be a long-term capital event for the industry, especially given historically strong capital levels, there will be a decrease in industry capital. As the C1 charges will still be driven by NRSRO ratings, sectors and issues that can provide higher yields for the same credit quality will become even more attractive on a capital-adjusted basis. We foresee a continued interest in non-fixed-income investments, which are not being affected similarly, as the relative attractiveness of those investments will increase as compared to the majority of fixed income securities that experience increased capital charges.

Conning remains adamant that a holistic approach to developing investment strategy is imperative. Developing and optimizing a long-term investment strategy requires a framework that considers the impact of capital charges (not just C1) and how they interact with the other components of a company's RBC formula. While tactical investment opportunities may arise at times, the tactical value is still secondary to the impact of a strong investment framework that manages the many needs of an insurer's balance sheet.

Base Factor Changes in C1

There are two major components to calculating the C1 required capital amount for RBC: base factors and portfolio adjustment. The base factors and their proposed changes are shown in Figure 1.

Figure 1 Base Factor Table

Prior NAIC Risk Categories	Current (2020) Risk Categories	Equivalent Ratings	Current Base C1 Risk Charge Applied to Amortized Cost (Book Value)	Accepted C1 Risk Factors
NAIC 1	1.A	Aaa	0.39%	0.16%
	1.B	Aa1	0.39%	0.27%
	1.C	Aa2	0.39%	0.42%
	1.D	Aa3	0.39%	0.52%
	1.E	A1	0.39%	0.66%
	1.F	A2	0.39%	0.82%
	1.G	A3	0.39%	1.02%
NAIC 2	2.A	Baa1	1.26%	1.26%
	2.B	Baa2	1.26%	1.52%
	2.C	Baa3	1.26%	2.17%
NAIC 3	3.A	Ba1	4.46%	3.15%
	3.B	Ba2	4.46%	4.54%
	3.C	Ba3	4.46%	6.02%
NAIC 4	4.A	B1	9.70%	7.39%
	4.B	B2	9.70%	9.54%
	4.C	B3	9.70%	12.43%
NAIC 5	5.A	Caa1	22.31%	16.94%
	5.B	Caa2	22.31%	23.80%
	5.C	Caa3	22.31%	30.00%

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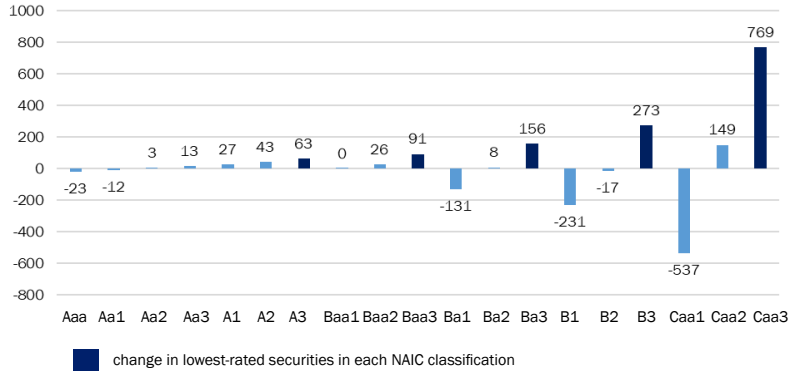
One method of comparison is to simply look at the difference between the two risk charges (see Figure 2). Logically the biggest changes are in the lowest-rated securities where the charges are the highest. Additionally, RBC charges for the lowest-rated securities in each of the NAIC classifications (i.e., A3 in NAIC 1, Baa3 in NAIC 2, Ba3 in NAIC 3, B3 in NAIC 4, and Caa in NAIC 5) rise by increasing amounts as we move further out in quality. The proposal reduces the charges for AAA-rated securities and the higher-rated parts of each below-investment-grade band.

Figure 2 Different Between Accepted C1 Risk Factors and Current Charge (in bps)



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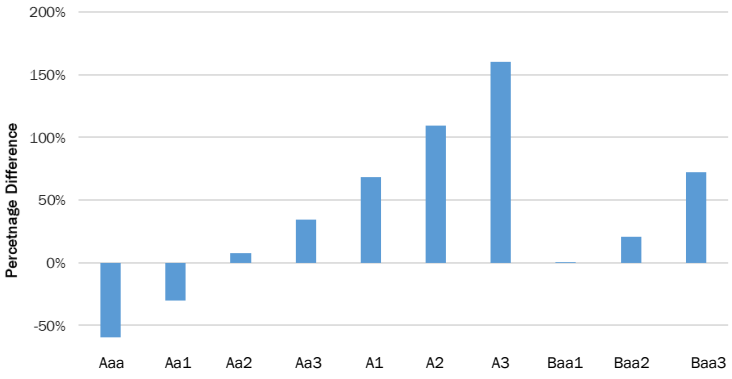
Life insurer portfolios, however, are not evenly distributed across all rating bands (see Figure 3). A percentage-point difference does not truly capture the magnitude of the change. For this reason, we need to look at the percentage difference and we focus on investment-grade securities.

The percentage difference shows that the bonds currently at the lower end of credit quality for the NAIC 1 larger risk category would have risk charges that would double or almost triple the risk charges. With many insurers relying on their corporate bond portfolios in A- and BBB-rated securities, this would have a large effect on industry RBC ratios.

Figure 3 Different Between Accepted C1 Risk Factors and Current Charge, percentage difference



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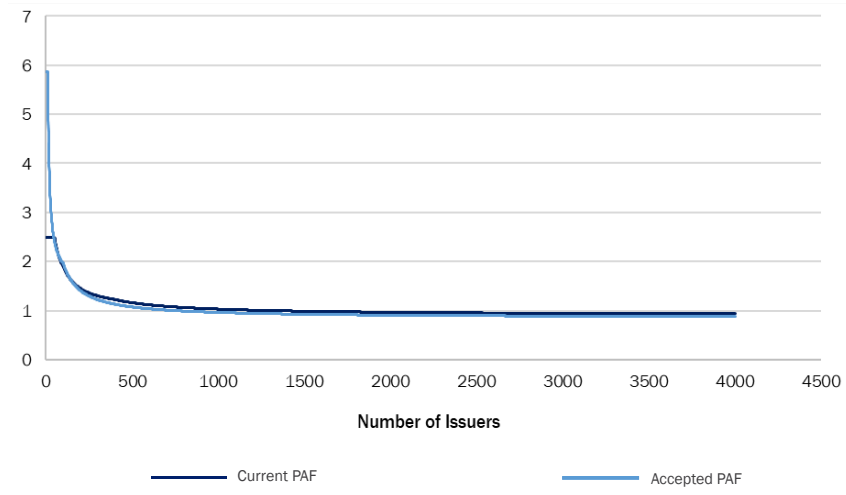
Portfolio Adjustment Factor

An additional concern for insurers is changes to the portfolio adjustment factor (PAF). This captures credit concentration risk when insurers have too few issuers represented in their bond portfolio. While there is some general correlation between issuers within a sector and obviously during a recession, there is no perfect correlation. As a result, there is some diversification of credit risk by having more unique issuers within a portfolio.

The PAF attempts to capture the diversification benefit of having a variety of issuers in the bond portfolio, as well as a credit concentration risk by having too few issuers. The current, pre-2021 PAF ranges from 2.5 for 50 and fewer issuers in the portfolio, decreasing down to 1 at 1300 issuers, and continuing to decrease slowly approaching 0.9 in the limit. In the accepted proposal, the PAF is 5.87 for having 10 or fewer issuers, and is at 1 for about 750 issuers, and continues to decrease toward a limit of 0.82. Figure 4 shows the results for the current PAF and the accepted PAF.

Figure 4 Comparison of "PAF" by number of issuers



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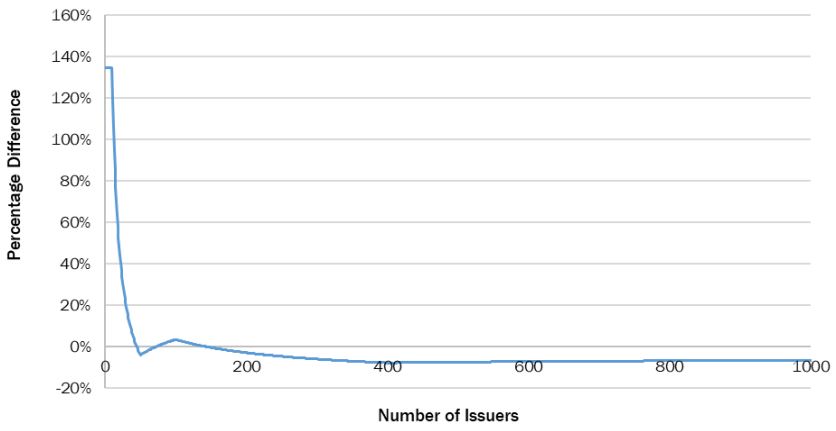
Again, doing a head-to-head comparison in measuring percentage-point differences does not capture the magnitude of the effect a new PAF will have, which will affect those insurers with the fewest unique issuers in their portfolios. Figure 5 shows the percentage difference between the proposed and the current factors.

The crossover point is at about 150 issuers; however, for both the current and proposal, the PAF is greater than 1. The combination of the proposed PAF and proposed higher C1 risk charges for investment-grade bonds may require careful analysis on the part of life/annuity insurers. While in aggregate this will likely have a smaller impact on the life industry's capital level, for smaller insurers with accordingly less issuers in their portfolio this impact could be quite meaningful.

Figure 5 Percentage Difference between current PAF, by number of issuers



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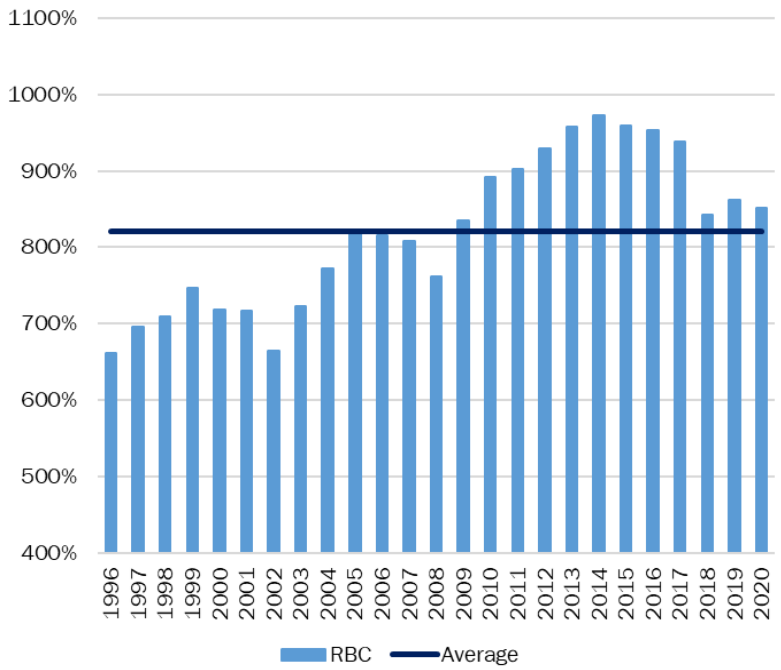
Broader Industry Impact

Conning sees this as an evolutionary event and not a revolutionary one, even though the investment credit-risk component for life insurers is a meaningful driver of RBC. The life insurance industry has undergone several meaningful changes to its RBC levels over the past 25 years. Figure 6 illustrates the long-term improving trend in RBC levels across the life insurance industry.

Capital levels, as measured by RBC, are higher than historical averages. More importantly, the industry has been well positioned to sustain shocks, as exhibited in the dips around the recession following the tech bubble and 9/11 in 2001-2002 and the stresses of the Great Financial Crisis in 2008. One final stress came from the reduction in RBC that came out of the Tax Cuts and Jobs Act of 2017 which affected the 2018 RBC level via reductions in corporate tax rates that reduced the value of deferred tax assets. Similarly, we view these changes as a bump to capital rather than a seismic shift but one that the industry can sustain as it continues to strengthen.

Figure 6 Life Industry RBC Ratios



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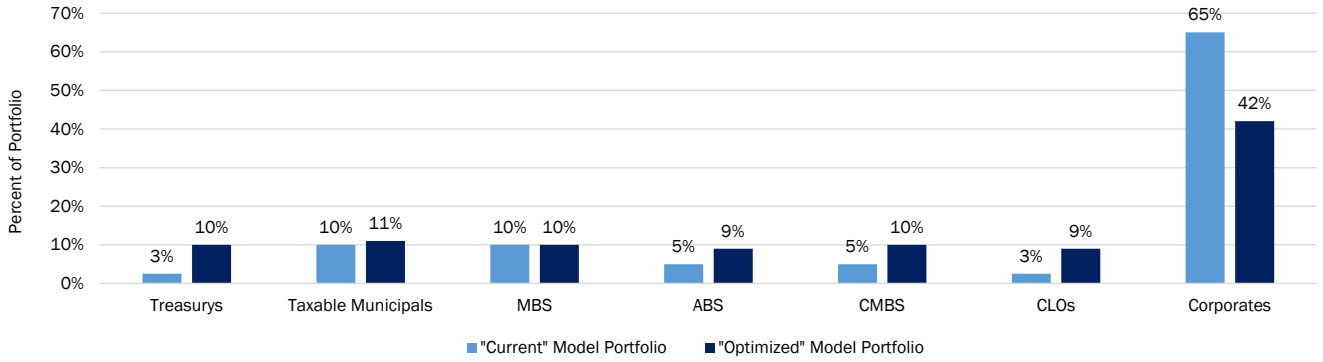
Our estimates indicate that, based on the industry's year-end 2020 bond holdings, there would be a 19% increase in the bond C1 capital charges. Applying this increase to 2019 industry RBC components results in a drop of about 40-60 points to the industry's RBC ratio.[2] The current industry bond portfolio holdings include many higher-quality securities (lower capital charges) with higher book yields which, over time as investment strategies migrate toward lower-quality securities, will lead to higher portfolio capital charges. This excludes recent results which could also impact capitalization levels of the industry. On a company level, this change will hold unique consequences as each company has varying RBC components, investment strategies and capital levels. Companies with lower-rated-investment fixed income portfolios, less diversification in their RBC formulas, and lower capital levels will be affected more than others.

Investment Strategy Implications

While there are meaningful changes proposed to the C1 factors for fixed income investments, the ending C1 factor for a security will still rely on an NRSRO rating. While this might have been logical when C1 factors were last updated, life insurer portfolios are more diverse than ever. This continues to ignore the impact of varying default expectations across fixed income sectors. For instance, an A-rated investment-grade corporate bond and A-rated municipal bond might have different default and loss experiences and future expectations. The continuation of this framework will continue to incentivize insurers to pursue the higher-yielding securities within each rating band, within reason and other constraints.[3] Additionally, without subsequent increases in capital charges for non-bond investments, areas such as equities and alternatives will become more attractive on a capital-adjusted basis.

To demonstrate how a model portfolio could change, we undertook a portfolio optimization exercise (see Figure 7). We first designed a model life insurance portfolio, broadly representative of current industry portfolio construction. Our current model portfolio has a dominant position to corporates with much smaller allocations to structured securities and municipals and Treasury bonds. This model portfolio under the old C1 factors had a 69-basis-point C1 charge in aggregate; under the new framework it increased 30% to 90 basis points. When we took that initial strategy's main characteristics and constrained them, such as limiting duration to +/- 0.5 from the "Current" Model portfolio, we are led to a very different model portfolio. We also attempted to limit the increase in C1 charge to a 20% increase from the initial 69 basis points to limit the impact on overall RBC ratios.

Figure 7 Portfolio Optimization Exercise



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The resulting "Optimized" Model Portfolio favors higher-rated securities where there is a yield pickup to traditional investment grade corporate bonds. This drops the modeled corporate allocation from 65% to 42% in favor of Treasurys, AAA- and A-rated ABS, AA- through BBB-rated CLOs and CMBS. These securities offer a yield pick over comparably rated corporate bonds.

This "Optimized" portfolio yielded meaningful improvement in key portfolio characteristics (see Figure 8). Duration remained close to the current model at 6.8 versus 7.3 to limit interest rate risk for the modeled company's liabilities. The portfolio C1 charge barely increased from 69 basis points under the current regime to 71 basis points under the new regime.

Figure 8 Portfolio Comparison

	"Current" Model Portfolio	"Optimized" Model Portfolio
Yield	1.87%	2.18%
Duration	7.3	6.8
Prior C1	0.69%	0.61%
New C1	0.90%	0.71%
Percent Increase in C1	30%	16%

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This analysis does not include non-bond sectors which we think will benefit as their capital charges do not change. And we did not include private placements in this exercise, but had we, they would be a dominant investment. Less liquid investments that can provide a yield premium over more liquid securities with the same rating will only continue to grow in interest, as the capital-adjusted return on most of the fixed income universe has decreased. Private placements and other illiquid investments can add meaningful value for companies; however, they require a thoughtful analysis of your firm's liquidity position and tolerance for less liquid securities (see Private Placements: Aiming For Growth, Yield, Downside Protection & Customized Cash Flows).

Solving a Complex Problem: The Need for a Holistic Solution

With the looming changes to C1 factors, a question persists of how insurers will adjust their investment strategies. The current framework only differentiates in the investment-grade world between NAIC 1 and NAIC 2 securities (equating to A- and above and BBB+, BBB and BBB-, respectively). This typically translates into investment policy statements that limit the amount of BBB-rated and below-investment-grade securities due to their higher capital charge. We believe the increased delineation of capital charges could translate into a similar delineation in investment guidelines.

The proposed changes of C1 factors require that life insurers now more than ever embrace an investment strategy that incorporates their capital needs. In our work with life insurers, we see a variety of approaches with some companies foregoing comprehensive solutions for determining their optimal investment strategy. Traditional asset-liability matching (ALM) needs, cash-flow testing requirements, and expected total returns all have their own cost. And more importantly it comes at the expense of determining the optimal strategy inclusive of the company's specific RBC components. Optimizing for future cash flows while incorporating the need for maintaining a healthy RBC ratio leads to outcomes where insurers are not trading one analytic for another or focusing on one return stream over others.

Conning has long optimized investment strategies for life insurers inclusive of all of these factors and no new capital factors or RBC formulas will change that. As these possible factors come to fruition, we plan on helping our clients navigate and adjust investment strategy moving forward.

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FOOTNOTES

[1] The RBC ratios quoted in this paper reference the Total Adjusted Capital (TAC) divided by the Risk Based Capital. We understand that for certain purposes companies and industry participants often use TAC divided by two times the Risk Based Capital.

[2] Conning utilized the aggregate components for this analysis from the 2019 Aggregate Life and Fraternal RBC Results report included on the NAIC's website and reconciled those to the aggregate RBC for the industry. The difference between the RBC ratio of the aggregate components and aggregate RBC provided a multiper we were able to apply to this work.

[3] Additionally, this construct fails to recognize the differences in models various rating agencies employ in arriving at their rating. The varied criteria by agency could result in varied expectations and tolerance for loss / default probability resulting with the same rating.