The changing rules governing US insurers' investments:

Capital requirements and the role of agency ratings

Synopsis:

In response to shifting investment strategies, insurance regulators and the National Association of Insurance Commissioners (NAIC) have embarked on a multi-pronged revision to investment guidelines that will better align with the new landscape, including the following:

- **Classification of assets**, with principles-based approaches which will impact the likes of debt issued by investment vehicles and structured assets, as well as their equity and residual interests.
- **Designation process which relies on agency ratings**, with NAIC staff and regulators vocalizing concerns of rating agencies lacking consistent standards, notably private ratings that, by their private nature, are not subject to market oversight.
- **Capital allocation across assets**, with an initial focus on addressing potential capital arbitrage for structured assets and investment vehicles, and broader aspirations of aligning capital requirements across investments with their economic risks to avoid perverse incentives.

With trillions of dollars in insurers' investments likely impacted, the multi-year effort will have broad implications.

We hope you find this resource helpful
It is consistent with our goal of bringing value to our community

June 2023

About the Authors
Amnon Levy is the CEO of Bridgeway Analytics and led the redesign of the C1 factors on behalf of the NAIC and ACLI in 2021
Brett Manning is a Senior Predictive Analytics Specialist at Bridgeway Analytics

©Bridgeway Analytics 2023

Bridgeway Analytics supports the investment and regulatory community work to optimize the design, organization, and utility of regulations surrounding the management of insurance company portfolios. While the content in this document is informed by extensive discussions with our client base, the broader industry, NAIC staff, and state regulators and may contain analysis that Bridgeway Analytics had conducted as part of a commercial engagement and retains the right to reuse, the views in this document are solely those of Bridgeway Analytics and are based on an objective assessment of data, modeling approaches, and referenced documentation, that in our judgment and experience, are viewed as appropriate in articulating the landscape. Methodologies are available to the public through an email request at: support@bridgewayanalytics.com.

Asset Regulatory Treatment (ART)

STANDARDS & SYSTEM is a machine learning-assisted platform that efficiently and effectively organizes insurers' current and proposed investment guidelines including NAIC and state rules. Users are kept current and provided timely notifications on changes and their impacts, overcoming challenges with navigating the multitude of complex regulations across jurisdictions that use disparate language, with varied rulemaking processes. The platform is used by insurers' investment, risk, compliance, legal, government affairs, accounting, and reporting functions, as well as their regulators.

- **ART System** provides users access to codified state investment guidelines in a searchable and understandable format.
- **ART Newsreel Updates** alert users of the changes to the investment landscape, including NAIC and state investment guidelines, packaging, and delivering what matters most through timely, concise, and clear messaging.
- **ART Newsreels** are a centralized repository of recent and possible future changes to the landscape, including NAIC and state investment guidelines. Our Newsreels consolidate Newsreel Updates in a distilled and easy-to-navigate format.
- **ART Heatmaps** provide a visualization of the varying investment limits that govern asset classes across states.
- **ART Investment Classification (beta)** assists with the classification of assets, which includes requirements under the proposed principles-based bond definition which consists of possible heightened reporting requirements.

Table of Contents

Executive Summary 4
The purpose of RBC, investment guidelines, and the use of agency ratings 4
The current landscape of changing rules 6
Classification of assets, the bond definition, and residual interests 6
Designations and the use of agency ratings 7
Capital allocation and differentiation across asset classes 8
What's next? 9
What are we optimistic about? 10

Executive Summary

Discussed extensively in The Evolving Regulatory Landscape That Governs Insurers' Investments, United States insurance regulators have embarked on broad reforms, reacting to insurers shifting investment strategies that came with the Global Financial Crisis (GFC). The low-yield environment had insurers move more heavily toward higher-yielding alternative assets, such as private placements, structured products, and lower-cost, efficient investment vehicles, including bespoke private/non-SEC registered funds designed to address insurers' unique needs.[1] The multi-pronged revisions to the interconnected components of the Risk Based Capital (RBC) framework that governs investments include:

- **Classification of assets**, with principles-based approaches, will impact the likes of debt issued by investment vehicles and structured assets, as well as their equity and residual interests.
- **Designation process which relies on agency ratings**, with NAIC staff and regulators vocalizing concerns of rating agencies lacking consistent standards, notably private ratings that, by their private nature, are not subject to market oversight.
- **Capital allocation across assets**, initially focusing on addressing potential capital arbitrage for structured assets and investment vehicles. Regulators have expressed broader aspirations of aligning capital requirements across investments with their economic risks to avoid perverse incentives in investment strategy.

With trillions of dollars in insurers' investments likely impacted, the multi-year effort to revise the rules will likely result in insurers updating their investment strategies and internal governance frameworks with broader downstream implications for capital markets.

This report explores the changing rules that govern US insurers' investments and their implications for investment strategy and capital markets. We begin with an overview of RBC, focusing on capital guidelines that govern investments, the use of agency ratings, limitations with the framework, and implications. We then explore the possible revisions outlined above. We conclude by highlighting what to expect in the foreseeable future and what we are optimistic about.

The purpose of RBC, investment guidelines, and the use of agency ratings

The purpose of RBC is to help "identify potentially weakly capitalized companies." The goal of setting varying capital requirements across assets is to help identify and differentiate economic risks prevalent across insurers' portfolios. As a corollary, the varying capital charges should not incentivize poor business decisions that can adversely impact solvency. In that spirit, the framework should capture the insolvency risks and mitigate risk-shifting incentives, such as regulatory arbitrage.

The RBC framework was developed following a dark episode in the 1980s when ~175 life and health insurer insolvencies made clear the inherent problems with fixed capital standards.[2] Fixed capital standards did not address the variation in fundamental risks across sectors and companies, with every company being required to hold the same minimum amount

[1] Amnon Levy, Bill Poutsiaka, and Scott White, Trends in the Ownership Structure of US Insurers and the Evolving Regulatory Landscape. Insurance AUM Journal, Q3 2023.

[2] Risk-Based Capital, NAIC - Last Updated 12/6/2022.

of capital, regardless of its financial condition, size, and risk profile. It led to the NAIC's adoption of RBC standards in the early 1990s, which among other features, distinguishes the inherent riskiness of financial assets.

The RBC framework separates the various risks inherent in insurance investments. It isolates credit risk, with *bond* and the various *real estate mortgage* factors differentiating capital charged for credit across their respective designation spectrum. A *bond*, in spirit, represents any non-mortgage credit within the NAIC nomenclature. *Bond* designations are generally rating agency-based but can be based on an NAIC internal model. RMBS and CMBS designations, for example, are required to be NAIC model-based.

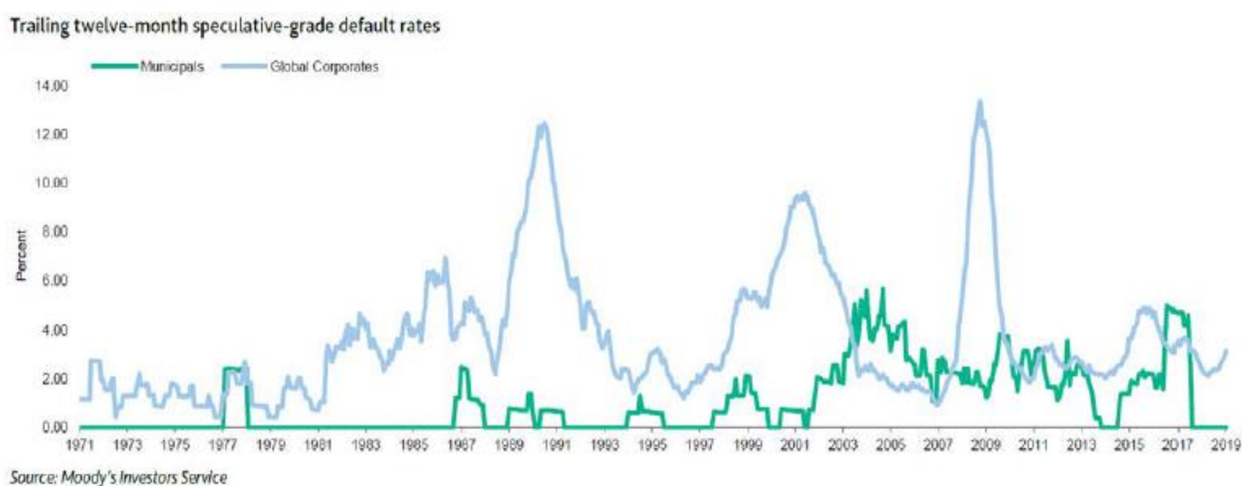
Designation and capital assignment represent the two bottom prongs referenced in the executive summary and play distinct roles in RBC:

1. Designations, and credit ratings, are ordinal and provide a credit risk ranking across the credit spectrum.
2. Capital is cardinal, with RBC factors differentiating the level of capital across the credit spectrum.

Changes in insurers' investment strategies have exposed limitations with investment guidelines. Discussed more extensively in What's Next for the Rules that Govern Insurers' Investment, misalignments between capital and the underlying economic risks have highlighted capital arbitrage opportunities.

While aspirational goals of aligning incentives with economic risks are broadly accepted as desirable, there are substantial practical challenges with categorizing and measuring credit risk across assets. As discussed extensively in Assessment of the Proposed Revisions to the RBC C1 Bond Factors, there are material differences in default, migration, and recovery dynamics across asset classes observed historically after controlling for credit quality using agency ratings. The report provides context, highlighting how municipal bonds, as an example, have experienced substantially lower default rates than global corporates. Between 1970 and 2019, the ten-year cumulative default rate for investment-grade global corporates was 2.25%, significantly higher than the 0.1% experienced municipal credits. For speculative-grade credit, the dynamics are similar, with the global corporate default rate at 28.68%, about four times the 7.29% experience by municipal credit. To understand the different time-series dynamics, Figure 7 from the study is reproduced in *Figure 1* below, whereby the twelve-month moving average Moody's rated speculative-grade default rates are presented for corporate alongside municipal bonds.

Figure 1: Historical default rate of speculative-grade municipal bonds and global corporates



These observations highlight how different factors impact different asset classes to a different degree over varying economic environments. The observations extend more broadly to other forms of credit, such as structured assets and private placements. They are not limited to credit risk, with different asset classes impacted by liquidity and other risks

differently. The challenge of rank ordering and level-setting risk across asset classes is substantial. That said, aligning capital requirements with economic risks is critical and otherwise can produce perverse incentives.

The current landscape of changing rules

Changes to the three-step process of assigning capital

- Classification of assets

- Designations and the use of agency ratings

- Capital allocation

Classification of assets, the bond definition, and residual interests

Discussed extensively in The NAIC Spring National Meeting Review: What's Next for the Rules that Govern Insurers' Investments, a multi-year effort has been underway to revamp the NAIC's definition of how *bonds* are classified. The *principles-based approach* is expected to go into effect at the beginning of 2025. The most recent definition and related material are exposed for public comment on the NAIC's Statutory Accounting Principles Working Group page through June 9, 2023. The material walks through typical characteristics that would have an asset receive favorable *bond* treatment or not and separates two classes of issuing entities:

- **Issuer credit obligations** that represent the likes of corporate or municipal bonds
- **Asset-backed securities** (ABS) that represent, in spirit, investment vehicles

The proposed guidelines are coupled with added reporting. If, for example, there is uncertainty with the timing or amount of cash flows associated with direct holdings in feeder funds, additional evaluation is needed. Factors including discretion by the fund manager to withhold distribution would be considered when assessing whether the structure aligns with the spirit of the principles-based definition. Similarly, credit, such as a note, which a feeder fund issues, would need evaluation that includes the terms and conditions of the note and underlying supporting assets of the fund. Keeping in the spirit of having the approach be principles-based, while credit that is ultimately backed by equity interests is presumed to not qualify as a bond, it is not precluded from receiving bond treatment, but the credit would have to meet the equity-backed requirements. Meanwhile, CLO debt tranches are singled out and would be treated as ABS and receive favorable bond treatment.

While the principles-based definition has been converging, NAIC staff has recently recommended a new classification of residual tranches of structured assets that might also be relevant for equity interests of a broader set of investment vehicles. Recommendations from NAIC staff (Attachment A) point to concerns regarding underreporting residual interests held through joint ventures, partnerships, and limited liability companies, along with guidance that in-substance residuals be reported as residuals. The recommended guidance includes references to residuals of investment structures backed directly or indirectly through a feeder fund, suggesting possible implications for a broad set of investment vehicles held by insurers. The materiality of the residual definition scope depends on a related proposal that would increase the residual capital charges for life companies from 30%, which is in line with equity interests, to 45%.

The proposed revisions take on the heroic task of laying out guidelines for the seemingly endless characteristics present with insurers' investment vehicle holdings. They plot a course between overly specific, allowing for loopholes, and overly broad, where more assets than intended are covered. To this end, the principles-based bond definition can serve as a

roadmap of how a definition might be developed that satisfies the regulator's desire to track the usage of these assets properly and allow insurers the flexibility to use the appropriate form for investments. Guidance by staff includes the descriptions and characteristics, some of which have similarities to those associated with equity interests, with a few items to keep an eye out for:

- Guidance includes references to a residual interest, or a residual security tranche, existing in investment structures backed by a discrete pool of collateral assets. Would Collateralized Loan Obligations, for example, qualify as the underlying collateral is not a 'discrete pool'? If they qualify, would all equity in private funds (including hedge funds) also be covered?
- Would equity interests in real estate funds be covered? Life companies' capital charge for real estate not wholly owned was updated to 13% in 2021, far from 30% or 45%, with discussions at the time pointing to the subjectivity of classification (Life Real Estate Proposal).

With insurers holding equity interests in a broad spectrum of non-SEC registered investment vehicles with varying characteristics, totaling ~$52 billion in YE 2022, the guidance on classification is of great interest and deliberately imprecise by its principles-based spirit that will ultimately be precedence-based.

Designations and the use of agency ratings

While the NAIC designation process relies heavily on agency ratings in determining the level of capital allocated to bond investments, NAIC staff and regulators have expressed a desire to move away from relying on rating agencies since the Great Financial Crisis.[3] This move is not unique, with rulemaking bodies in the United States and those of other jurisdictions discouraging the 'mechanistic reliance on ratings' as part of regulations.[4] This drive is a response to concerns about the incentives faced by rating agencies and how rating actions contribute to market volatility through unduly correlated asset price volatility.

These issues are coupled with general challenges of quantifying the risk of default and other remote events inherent with investment grade credit, as is benchmarking their performance. Revisions to the RBC C1 Bond Factors discusses this extensively, and it is further explored in Benchmarking the Treatment of CLOs.[5]

Considering these challenges, NAIC staff and regulators continue to raise concerns about the appropriateness of agency ratings for regulatory capital, citing evidence of inconsistent standards across agencies. Private ratings have been further singled out because they are, in their private nature, not subject to market oversight and the associated reputational incentives. The most explicit departure from ratings is in CMBS and RMBS, where designations are now based on the NAIC's intrinsic price model and can no longer be based on an agency rating. The NAIC has been working on several further initiatives:

- **Procedures for the SVO's discretion over NAIC designations.** The latest proposal outlines a process by which State Regulators and NAIC staff may challenge public and private ratings along with an appeal process. The proposed Procedures for the SVO's Discretion Over NAIC Designations have been exposed for public comment through July 14.
- **An update to the definition of an NAIC designation.** Over the last year, the NAIC has deliberated on what a 'designation' should represent. In part, the challenge lies with the interconnected yet separated processes of designation and capital assignment. The latest proposal sees the SVO attempt to thread this needle by carefully

[3] Amnon Levy and William Poutsiaka, The NAIC Alternative to Agency Ratings, Insurance Asset Risk.

[4] See the Financial Stability Board: Principles for Reducing Reliance on CRA Ratings or The European Supervisory Authorities report on 'Mechanistic reference to credit ratings'.

[5] The report illustrates that on the corporate front, there have been six defaults within 10 years of being assigned an Aaa MIS rating since 1970 (with all defaults occurring after 1983). In the US, between 1970-1989, Getty Oil and Texaco were two issuers that defaulted within 10 years of Aaa MIS rating, and they experienced extremely high recovery (~97% and ~88%). With a limited history of NAIC model-based designations, assessing performance using default or migration information is not practical.

framing a designation as a method by which risks are ranked ordered but not level set, the latter being left to the for the capital assignment process. The proposed Update to the Definition of an NAIC Designation has been exposed for public comment through June 29.

- **Treatment of 'Other Non-Payment Risks.'** Notably, the proposed designation definition departs from those used by agency ratings in its treatment of risks that it describes as not credit related (i.e., Other Non-Payment Risks). In this context, credit risk is often defined as the relative financial capability of an obligor to make the payments contractually promised to a lender, with possible references to the willingness of an obligor to make payments. Delineating Other Non-Payment Risks is important when differentiating capital charges and appropriately using an agency rating. For example, a Principal Protected Securities (PPS) might combine a US Treasury with performance assets to produce, say, contractual dividends tied to the performance of the S&P 500. While this asset might receive the highest agency rating (~AAA) on the count of an extremely unlikely credit event, the risks from dividends fluctuating with the S&P 500 would not be captured in the rating. Naively applying the designation would result in a more favorable capital charge than had the equity performance element have been considered.
  Since the RBC framework is not structured to handle assets with blended characteristics, the proposal includes expanding the SVO mandate for assessing Other Non-Payment Risks and the authority to notch NAIC Designations and assign the Subscript S Symbol accordingly. However, this issue has already been addressed in the proposed bond definition that excludes the likes of PPS from being classified as bonds raising the question of whether there is a need for the Subscript S classification at all.

- **CLO model-based designations**. Earlier this year, the NAIC adopted the CMBS and RMBS intrinsic price model for CLOs designations, with 2024 being the effective target date. Acknowledging that many technical aspects of the modeling continue to be worked out, Benchmarking the Treatment of CLOs explores the performance of intrinsic price-based modeled designations and finds that they benchmark poorly to agency ratings and market spreads.

Given the material role ratings play in both regulation and broader capital markets, it is no surprise that rulemaking bodies continue to focus on this issue but have taken very different strategies. While the NAIC is working more toward centralizing credit risk assessments, European regulators heavily favor internal models of credit risk placing the onus on individual institutions to assess asset risk, including ratings, with the risk being floored at the level of the agency rating.[6] The regulator is then positioned to review the institution's model and processes rather than having to review ratings per se. This means that insurers confident in their modeling assumptions also have predictability in capital while giving the regulators different appraisals of instruments rather than relying on their own models, which creates a single point of failure and model-use concentration risk. This crowdsourcing of modeling outcomes is a long way off in the US but could potentially be an aspirational goal.

Capital allocation and differentiation across asset classes

Credit ratings are ordinal, providing a ranking of risk across the credit, and as noted above, this ordering does not necessarily hold across different asset classes. Meanwhile, capital is cardinal, with RBC assigning a level of capital given a specific designation. This tension has driven much of the recent evolution of RBC, with proposed changes to both designations and capital charges.

Subsequent to the 2021 Revisions to the RBC C1 Bond Factors, the NAIC RBC Investment Risk and Evaluation Working Group was formed to perform a comprehensive review of the RBC investment framework. Discussed extensively in Assessment of the Proposed Revisions to the RBC C1 Bond Factors, the initiative to update the C1 bond factors highlighted limitations with the framework needing to differentiate the risks across credit assets sufficiently. While the Working Group's mandate is broad, the focus thus far has been on life companies' investments in structured assets and investment

[6] The European Supervisory Authorities report on 'Mechanistic reference to credit ratings'

vehicles and eliminating potential capital arbitrage, the significant reductions in capital from holding a vehicle's entire capital stack compared to the capital assigned to the underlying investments, with the economic risks arguably identical.

The complexity of the overall effort and a desire to have a thoughtful approach to what amounts to a sizable portion of insurers' overall holdings in investment vehicles (~$1 trillion) had the Working Group initially focus on a proposed interim measure that would increase the capital assigned to insurers' holdings of tranche residuals (~$11 billion) from 30%, the level that aligns with the broader set of equity interests, to 45%. The industry and regulators have highly bifurcated views on the Proposal, with some regulators proactively vocalizing objections or support. On the one hand, expressing the need for more analysis and questioning the urgent need for an interim change, and on the other, questioning whether residuals are appropriate investments for the life industry. The Working Group requested additional *new* comments through June 9 and will meet on June 14 to consider adopting the proposal.

The debate on residual capital charges is only the beginning with a desire to more broadly level-set risks across asset classes within the RBC framework. Other examples of capital arbitrage abound; notably, the benefits of directly held mortgages vs. MBS may come into sharper resolution as the real estate market fully incorporates changing work patterns and higher interest rates. As highlighted in this paper, RBC's blunt tool approach to solvency regulation will increasingly face off against the reality of highly nuanced financial products.

What's next?

> *Regulators generally don't regulate hypothetical practices. Rather there is a continuous process of evaluating the environment and appropriateness of the rules, being mindful of implications for costs associated with compliance burdens, possibly related to complex regulations and with implications for competition.*

Given the broad set of initiatives, some issues will be resolved in short order, while others will take time. We outline what to expect next with each of the key initiatives discussed above:

- **Classification of assets**
  - **A new classification of residual tranches** of structured assets that might also be relevant for equity interests of a broader set of investment vehicles. We expect this to be discussed at the NAIC Seattle Summer meeting on August 12-16 but do not expect immediate resolution given the nuances of characterizing these assets. As a reminder, the principles-based bond definition is being targeted for 2025, and it will take time to set precedence in the classification.
- **Designation process**
  - **An update to the definition of an NAIC designation** may be on the agenda for the NAIC Valuation of Securities (E) Task Force meeting on July 14; it is posted for public comment through June 29.
  - **Procedures for the SVO's discretion over NAIC designations** is posted for public comment through July 14 and may be on the Seattle Summer Meeting agenda.
  - **CLO model-based designation** Ad hoc technical group continues to work through details, with 2024 still the target start date for designations based entirely on the NAIC model.
- **Capital allocation across assets**
  - **The proposed interim increase in capital from 30% to 45% for tranche residuals held by life companies** is scheduled for a vote on June 14, 2023. A broad set of varying opinions have been shared by voting regulators, some of which will bubble up again when the NAIC begins deliberations over the long-term CLO capital framework.

- **Capital differentiation across asset classes, with an initial focus on CLOs and structured assets,** is being worked on in coordination with the American Academy of Actuaries. Similar to tranche residuals, the industry has highly bifurcated views on how this should be approached.

Beyond varying commercial interests, including variability in the potential impact on investment strategies across insurers, additional concerns include process and governance related to modeling, particularly the interim capital increase for residual tranches. Regulators have vocalized their own varying viewpoints, with some pointing to the need for the NAIC to maintain modeling standards. As the rules are updated, there are a few considerations to keep an eye on:

- **Classification of assets.** Given the associated costs, industries often have an initial negative reaction to new standards, including heightened disclosure. Still, if structured well, such changes can provide transparency and standardization that can be a boon. We saw this with CLO 2.0 after the financial crisis, which experienced substantial growth in part as a result of this standardization[7].
- **RBC is a blunt tool.** It is in no one's interest to see an increase in insurance companies' failure rate, primarily when the survivors bear the cost of such failures through payments to the state guaranty funds. That said, modifications to insurers' investment guidelines can have material implications on investment strategy and capital markets. Efforts to Reform NAIC Investment Guidelines: Lessons Learned from History explores this exact issue highlighting the critical need for a thoughtful data-driven process to level-setting capital across asset classes and provide insights on how to avoid past pitfalls. The report highlights that while RBC may serve regulators in identifying weakly capitalized companies, it is acknowledged that being too blunt can result in perverse and unfortunate incentives.
- **Interconnected components of the RBC framework**. There are overlapping elements to the classification, designation, and capital allocation that create tension regarding where an issue will be addressed. For example, the Structured Equity and Funds proposal originated from concerns including possible arbitrage with feeder structures. The proposal was broad and would impact both debt and equity positions across many investment vehicles beyond feeder notes that would no longer be able to rely on rating-based designations. While that proposal has been tabled in its current form, concerns about possible arbitrage remain. If the issue is eventually addressed, it is unclear which component within the RBC framework would be modified to achieve that goal. Our point is that the RBC framework needs to be evaluated in its entirety to understand the treatment of an asset class and the implications of possible changes.

What are we optimistic about?

While many contentious issues are being deliberated, with clear winners and losers to a policy change, regulators and industry should be congratulated on the collegiate discourse to promote stability and profitability. For their part, the NAIC and regulators continue to be deliberate about ensuring the process remains transparent and, importantly, have been open for feedback and discussion, and to their credit, changing course when needed.

Given the scale of overhauls to different parts of the framework, we are also confident that several structural issues will be addressed. Formalizing governance around the NAICs assumptions and model would be a significant step forward, and there does seem to be an appetite for such a move, elements of which have been raised in the recently formed Risk Evaluation Ad Hoc Group that will be evaluating the broad Property and Casualty RBC framework. This issue was also broached at a recent RBC Investment Risk and Evaluation Working Group meeting in the context of creating a better process to review new investment structures to ensure that US insurers can participate in financial innovation within the safety net of RBC. There are many challenges, but we are optimistic that the industry and rule makers will reach a consensus that ultimately benefits policyholders.

[7] The Structured Finance Association CLO White Paper.

Bridgeway Analytics and its product suite ART provide opinions related to the business implications of regulations and accounting standards. While Bridgeway Analytics aspires to provide accurate and timely information, the nature of distilling information to what we deem as most relevant, and the evolving and subjective nature of the rules, implies that the data represents our opinion of the rules and not the rules themselves. Users of ART agree to consult their legal, compliance, and accounting professionals before applying any data generated by or resulting from the use of the data in business processes. Bridgeway Analytics does not guarantee the accuracy, adequacy, completeness, timeliness, or availability of data and/or content, and is not responsible for errors or omissions (negligent or otherwise), regardless of the cause, and is not liable for any damages, costs, expenses, legal fees, or losses (including lost income or lost profit and opportunity costs) in connection with any use of the data and/or content.