Draft date: 3/19/25

2025 Spring National Meeting
Indianapolis, Indiana

RISK-BASED CAPITAL MODEL GOVERNANCE (EX) TASK FORCE
Tuesday, March 25, 2025
1:15 – 2:15 p.m.
JW Marriott Indianapolis—JW Grand 5–10—Level 3

ROLL CALL

NAIC Member	Representative	State/Territory
Judith L. French, Co-Chair	Judith L. French, Co-Chair	Ohio
Nathan Houdek, Co-Chair	Nathan Houdek, Co-Chair	Wisconsin
Doug Ommen, Co-Vice Chair	Doug Ommen, Co-Vice Chair	Iowa
Michael Wise, Co-Vice Chair	Michael Wise, Co-Vice Chair	South Carolina
Michael Conway	Michael Conway	Colorado
Andrew N. Mais	Andrew N. Mais	Connecticut
Karima M. Woods	Karima M. Woods	District of Columbia
Michael Yaworsky	Michael Yaworsky	Florida
Dean Cameron	Dean Cameron	Idaho
Robert L. Carey	Robert L. Carey	Maine
D.J. Bettencourt	D.J. Bettencourt	New Hampshire
Mike Causey	Mike Causey	North Carolina
Jon Godfread	Jon Godfread	North Dakota
Cassie Brown	Cassie Brown	Texas
Scott A. White	Scott A. White	Virginia
Patty Kuderer	Patty Kuderer	Washington

NAIC Support Staff: Dan Daveline

AGENDA

1. Consider Adoption of its March 17 Minutes — Attachment One
   —*Director Judith L. French (OH)*

2. Hear a Summary of Written Comments Received — Attachment Two
   —Commissioner *Nathan Houdek (WI)*
   A. American Council of Life Insurers (ACLI) — Attachment Three
   B. Athene — Attachment Four
   C. Anderson Insights — Attachment Five
   D. Bridgeway Analytics — Attachment Six
   E. American Academy of Actuaries — Attachment Seven

3. Hear Other Oral Comments—*Director Judith L. French (OH)*

4. Discuss Any Other Matters Brought Before the Task Force
   —*Director Judith L. French (OH)*

5. Adjournment

Draft: 3/19/25

Risk-Based Capital Model Governance (EX) Task Force
Virtual Meeting
March 17, 2025

The Risk-Based Capital Model Governance (EX) Task Force met March 17, 2025. The following Task Force members participated: Judith L French, Co-Chair (OH); Nathan Houdek, Co-Chair (WI); Doug Ommen, Co-Vice Chair, represented by Kevin Clark (IA); Michael Wise, Co-Vice Chair (SC); Michael Conway represented by Rolf Kaumann (CO); Andrew N. Mais (CT); Karima M. Woods and Philip Barlow (DC); Michael Yaworsky represented by Ainsley Hurley (FL); Dean L. Cameron and Eric Fletcher (ID); Robert L. Carey (ME); Mike Causey represented by Jackie Obusek (NC); Jon Godfread represented by Matt Fisher (ND); D.J. Bettencourt represented by Doug Bartlett (NH); Cassie Brown represented by Jamie Walker (TX); Scott A. White (VA); and Patty Kuderer (WA).

1. Adopted its Proposed 2025 Charges

Director French indicated that the purpose of the meeting was to consider adoption of its proposed 2025 charges after they were exposed for comment on Feb. 9. Comments were received on the exposed charges, as well as other items included in the Feb. 9 memorandum, and will be part of the public record as attachments to the Task Force's meeting at the Spring National Meeting, where the other items will be discussed.

A. American Council of Life Insurers

Mariana Gomez-Vock (American Council of Life Insurers—ACLI) said the ACLI is supportive of the Task Force and its mission. She indicated that the ACLI had previously noted in NAIC discussions in 2024 the need for a transparent, robust process that is informed by data, so it appreciates and supports the creation of the Task Force. Gomez-Vock noted that in light of the interconnectivity of the U.S. statutory framework, the ACLI encourages the Task Force to take a comprehensive view and focus on issues related to structural shifts in the life insurance industry. Structural shifts are often defined as cross-border asset-intensive reinsurance and the evolving asset allocations in life insurers' portfolios. The ACLI believes the Task Force is well-positioned to take a comprehensive viewpoint to provide greater oversight and strategic directions about the policy implications of different workstreams while also empowering technical working groups to pursue more detailed work that aligns with the Task Force's principles.

Gomez-Vock noted that the memo discusses asset issues, but the ACLI thinks it is important to include the NAIC's related reinsurance workstreams. The current global focus on cross-border reinsurance and asset allocation has created a spotlight to communicate the strength of the U.S. system and its ability to effectively assess and respond to evolutions in the market. Focusing on structural shifts will also promote alignment across connected initiatives to ensure that such work advances desired policy outcomes. A big picture is important to maintain the integrity, adaptability, and global competitiveness of the U.S. market while also protecting policyholders. Maintaining commissioner-level transparency in projects that address some of these changes in the industry will help the U.S. system sustain its consistency as it evolves alongside the market. Gomez-Vock suggested that it might be helpful for the Task Force to consider creating an inventory of projects that might be related to structural shifts in the life insurance industry. She also noted that this big picture viewpoint is critical to help identify the best regulatory solutions to protect policyholders while also fostering access to innovative and affordable protects to address protection gaps. The ACLI welcomes the opportunity to assist the Task Force in advancing this important work.

B. Athene

Kimberly Welsh (Athene) said that Athene strongly supports the creation of the Task Force and its 2025 goals and charges. The Task Force will provide essential commissioner-driven oversight and coordination and will help fulfill the NAIC investment framework's goal of setting a long-term strategic direction for investment regulation. The development of clear guiding principles for risk-based capital (RBC) adjustments coupled with the robust gap analysis and consistency assessment will help ensure that RBC methodologies, assumptions, and models are empirical, quantitative, and internally consistent and that the future and retrospective adjustments to RBC are data-driven. She noted that Athene applauds the Task Force's charge to develop educational materials and a public messaging campaign. It recommends this includes proactive advocacy internationally at the International Association of Insurance Supervisors (IAIS) and with other international regulators to promote the state-based system and RBC. Athene also encourages prompt evaluation of all active work streams to ensure alignment with the Task Force's initiative and the investment framework. Current work, such as the ongoing work around collateralized loan obligation (CLO) modeling, should benefit from the guiding principles and be consistent with the NAIC's broader direction on solvency regulation. This initiative is a critical step forward to modernize and ensure long-term integrity to the RBC framework to account for real-world investment dynamics when calibrating RBC charges to advance consistency, equal capital for equal risk, and recognize that the life sector is evolving and is a substantive role in financing the real economy and closing the retirement gap in the U.S. This Task Force will help to ensure that RBC is robust, resilience and continues to set a global standard for safeguarding policyholders while fueling economic growth.

C. American Academy of Actuaries

Katie Dzurec (American Academy of Actuaries—Academy) said that, like others, the Academy supports the Task Force's goals and charges for 2025 but has some forward-looking ideas for assisting with the guiding principles and performing the gap analysis. She indicated the Academy has provided some past and more recent resources and looks forward to continuing its relationship with the NAIC.

D. Anderson Insights

Chris Anderson (Anderson Insights) said that he was a chartered financial analyst who began focusing on insurance company investments at Merrill Lynch Capital Markets and Investment Banking about the time RBC was implemented. Over the last 15 years, he has consulted independently and advised, but not represented, clients primarily concerning insurer investing. He strongly supports the initiative being undertaken, along with others submitting written comments.

Anderson noted that the purpose of the RBC structure was to identify weakly capitalized and, therefore, potentially troublesome insurers. It was designed to enable, and even require, regulators to take action. It should be acknowledged that while RBC is one window regulators can look through to evaluate insurers, it is only one of a suite of tools that is available to them. But what makes RBC unique and so vitally important is that it has been adopted as a uniform standard by all NAIC members. This means that regardless of where an insurer is domiciled at pre-specified RBC levels, discretion ends, and the regulator is compelled to take action. This ensures that there is an absolute minimum standard and a level playing field that applies in all 56 jurisdictions and bolsters confidence in the state-based system. That is why it is so important to evaluate how well RBC is fulfilling its critical function by looking at its strengths and weaknesses before work is begun to further strengthen it. He noted that his comment letter addresses this specifically; however, when he looked recently at RBC data for common stock, specifically C-1 common stock, he was surprised to see that total industry-wide life insurer holdings of unaffiliated

common stock, which amount to just slightly over 2%, resulted in 25% of total industry risks. He said that this seemed odd because he was not familiar with any insurer that has ever failed due to this specific type of asset.

Anderson noted that as discussed in his letter, the NAIC is very well positioned to perform an analysis of the risks that are the root causes of financial difficulties. The Financial Analysis (E) Working Group and its predecessors have a wealth of knowledge in this regard. Other regulators also have a great deal of valuable experience. Anderson said it is important that the Task Force first look at the reasons for failure and then align those with the experience of RBC to ensure that RBC is actually capturing those risks.

Director Wise made a motion, seconded by Director Cameron, to adopt the proposed charges as included in the Feb. 9 memo (Attachment --). The motion passed unanimously.

2. Discussed its Spring National Meeting Agenda

Commissioner Houdek stated his appreciation for all 350 participants of the meeting. It highlights strong interest and reaffirms his belief in the importance of staying involved and providing feedback. As the work continues through the end of 2025, the plan is to move aggressively with a matching timeline, but he noted the Task Force is committed to soliciting feedback and input from interested parties, especially from interested parties who have firsthand RBC experience.

He noted the Task Force's meeting at the Spring National Meeting would be similar to this meeting, and those who provided written comments would be given an opportunity to summarize their views. He stated that while the formal deadline for comments of March 12 has passed, he encouraged any additional feedback, specifically on the questions that were included in the exposed memorandum. Interested party involvement is critical for completing this work effectively.

Having no further business, the Risk-Based Capital Model Governance (EX) Task Force adjourned.

SharePoint/NAIC Support Staff Hub/Committees/EX CMTE/RBCMGTG/Spring National Meeting/031725 RBC Model Gov TF Minutes.docx

NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

MEMORANDUM

To: Interested Regulators and Interested Parties

From: Director Judith French (OH), Co-Chair of the Risk-Based Capital Model Governance (EX) Task Force
Commissioner Nathan Houdek (WI), Co-Chair of the Risk-Based Capital Model Governance (EX) Task Force

Date: February 9, 2025

Re: Risk-Based Capital Model Governance (EX) Task Force

Overview

This memorandum provides background for the work related to the Risk-Based Capital Model Governance (EX) Task Force as well as the 2025 goals and proposed charges. The work of this Task Force will align with the NAIC's 2025 strategic roadmap and the RBC components of the Financial Condition (E) Committee's "Framework for Regulation of Insurer Investments – A Holistic Review."

Background

The prolonged low-interest rate environment that has existed since the Global Financial Crisis (GFC) of 2007–2009 created an industry trend to search for yield in investment portfolios and a material shift in the complexity of insurers' investment strategies, resulting in more market and credit risk than historically normal. Traditional banks have also retreated from providing credit due to stricter post-GFC regulations and there has been a notable increase in private capital. These factors have contributed to insurers now serving as a growing source of real economy financing.

RBC is a tool used by regulators to identify weakly capitalized insurance companies. In doing so, RBC quantifies the risks taken by insurance companies by establishing minimum levels of required capital necessary to absorb those risks. Failure to hold certain prescribed levels of capital results in regulatory action in accordance with the level of capital shortfall. Capital requirements are generally calibrated to a targeted level of statistical safety, established to cover losses associated with a given risk within a desired level of confidence.

The Risk-Based Capital Model Governance (EX) Task Force will be tasked with developing guiding principles for updating the RBC formulas to address current investment trends with a focus on more RBC precision in the area of asset risk and to ensure that insurance capital requirements maintain their current strength and continue to appropriately balance solvency with the availability of products to meet consumer needs.

2025 Goals

The Risk-Based Capital Model Governance (EX) Task Force seeks to accomplish the following in 2025:

1. Develop guiding principles for future RBC adjustments.
2. Perform a comprehensive gap analysis to identify inconsistencies and prioritize solutions where appropriate.
3. Design an education and messaging campaign to highlight the RBC framework's strengths.

Guiding principles should be established by the Task Force to be used for current and future work to update the RBC formulas. With regards to current work, in 2022, the Financial Condition (E) Committee directed the life risk-based capital formula to be updated to reflect an increase in tail risk that exists for newer asset-backed securities, including residual investments. As the work of updating the RBC formula was undertaken by the relevant RBC working groups, differences of opinion on threshold questions and underlying data may have led to confusion among both regulators and other stakeholders. Principles will help address these types of situations in the future.

To avoid similar confusion for work related to RBC, the principles will answer the following questions:

- When should a particular risk be addressed in the RBC model?
- What level and type of data and analysis are needed to support the setting of capital factors?
- How should new and emerging risks and asset types be treated if a capital framework has not yet been developed for them?
- What level of statistical safety is to be targeted by the model or, if not, a single target, and how should such tailored safety targets be determined?
- When should the calibration of risks to capital factors be re-evaluated?

As it pertains to performing a gap analysis, the Task Force will engage with relevant stakeholders and subject matter experts to develop a list of gaps within RBC formulas, as well as consider the lack of consistency that currently exists within the methodologies of current life asset risks. Although the reasons for such inconsistencies may be valid, the gap analysis should identify where these inconsistencies exist, whether more consistency would help improve the level of precision sought in this project, and whether new methodologies are needed.

Finally, with respect to the education and external messaging efforts, as the insurance market has become more global and large insurers have become internationally active, there has been an increase in the need for global insurance supervisors to understand differences across regulatory jurisdictions to effectively supervise these groups. Through these collaborative efforts, U.S. regulators and NAIC staff continue to engage with international stakeholders in efforts to improve understanding and knowledge of the U.S. state-based regulatory system, including the role of RBC. In short, this initiative will not only serve as an opportunity for an update to RBC governance; it is also an opportunity to define and communicate the strengths of the RBC framework to a global audience.

Role of External Consultants

An external consultant will be hired by the NAIC to provide objective analysis and technical expertise, ensuring that existing NAIC resources are minimized for this project to prevent detracting from existing priorities.

Draft Proposed 2025 Charges

1. Develop a set of guiding principles for the RBC framework to ensure a consistent approach to future RBC adjustments. These principles will serve as a strategic foundation to ensure that all revisions to the RBC framework are enhancements that uphold its integrity, adaptability, and global competitiveness and further the principle of "Equal Capital for Equal Risk."
2. Complete a comprehensive gap analysis and consistency assessment to identify and inventory gaps that exist and establish a plan for addressing identified gaps and potential inconsistencies that improve the framework.
3. Oversee the development of an education and public messaging campaign to highlight the benefits and strengths of the RBC framework as an important part of the U.S. state-based insurance regulatory system.

4. Facilitate and oversee coordination and alignment among all NAIC committees/task forces/etc. related to this initiative and implementation of the guiding principles, including the Life Actuarial Task Force (LATF), the Capital Adequacy Task Force (CATF), the Accounting Practices and Procedures Task Force (APPTF), and the Valuation of Securities Task Force (VOSTF). The work of this Task Force will not result in the work of other RBC-related committees/task forces/etc. being paused or stopped.
5. Create a process for analyzing both retrospective and future adjustments to RBC, incorporating regular reviews of RBC outcomes and ensuring future adjustments are made in alignment with guiding principles. This process will facilitate ongoing improvements to ensure the framework remains responsive to emerging risks and market trends, enabling the RBC framework to adapt proactively.

If there are any questions regarding this memorandum, please contact NAIC staff (Dan Daveline at ddaveline@naic.org) for further clarification.

Mariana Gomez-Vock
SVP, Prudential Policy and International
American Council of Life Insurers
Marianagomez-vock@acli.com

Carrie Haughawout
SVP, Life Insurance and Regulatory Policy
American Council of Life Insurers
CarrieHaughawout@acli.com

March 12, 2025

Commissioners Judy French (OH) and Nathan Houdek (WI)
Co-Chairs, RBC Model (EX) Task Force
1101 K Street, N.W., Suite 650
Washington, DC 20005
[Via email:] ddaveline@naic.org

Re: Memorandum on the formation of a Risk Based Capital (RBC) Model Governance (EX) Task Force

Dear Commissioners,
The American Council of Life Insurers ("ACLI") is pleased to offer these comments in response to a memorandum describing the charges and goals of the new Risk Based Capital ("RBC") Model Governance (EX) Task Force (hereafter, "the "Task Force"). We believe effective and efficient regulation is the cornerstone of the U.S. statutory framework and, to that end, support the NAIC's efforts to pursue comprehensive policy solutions. As a result, ACLI supports the formation of the Task Force and its charges.

We note that the RBC framework is one element of the U.S. statutory regime, and it is highly intertwined with other facets of the regulatory framework. Given the high degree of interconnectivity within the statutory framework and importance of ensuring coherence and balance across the framework, the Task Force should promote alignment across initiatives related to structural shifts in the life insurance sector.[1] In doing so, the Task Force could promote continuity across the efforts of various technical working groups to ensure they advance the desired policy outcomes and to mitigate the potential for unintended

[1] The International Association of Insurance Supervisors ("IAIS") has defined "structural shifts" in the life insurance sector to include increases in cross-border asset-intensive reinsurance and changes in life insurers' asset allocations. A more in-depth discussion of structural shifts is available in the *2024 IAIS Global Insurance Market Report*, (p. 30).

outcomes that could be detrimental to the integrity, adaptability, and global competitiveness of the U.S. insurance market and its consumers.

We have provided more detailed comments on the Task Force and its charges below.

ACLI supports the formation of the RBC Model Governance (Ex) Task Force.

The ACLI strongly supports the establishment of the Task Force which aims to provide Commissioners with greater transparency, enabling them to offer strategic guidance and direction to significant and impactful workstreams. In 2025, the Task Force is charged with creating a set of guiding principles for RBC adjustments, conducting a gap analysis of inconsistencies within RBC, and launching an educational and public messaging campaign about the strengths of the state-based regulatory system.

The Task Force will also oversee coordination and alignment among all NAIC committees, task forces, and other relevant bodies related to this initiative. As work proceeds, regular updates from various NAIC groups advancing adjustments to the statutory framework will promote consistency with the guiding RBC principles established by the Task Force. In addition to its coordinating role, the Task Force should prioritize initiatives proposed by technical working groups. This will ensure that the most appropriate and urgent regulatory solutions are pursued with a comprehensive view of the totality of the impacts.

The memorandum notes that the Task Force will not pause or halt existing projects. While ongoing work will continue, ACLI respectfully requests that the Task Force consider creating an inventory of connected high-profile projects, like the Reinsurance Asset Adequacy Testing work underway at the Life Actuarial (A) Task Force and the RBC updates for structured securities. Creating an inventory of related work will promote transparency into relevant workstreams and create a valuable resource for regulators and stakeholders. An inventory of connected projects could also assist with regulators' efforts to identify and resource top priorities and help ensure that Commissioners are well-positioned to provide strategic guidance to Committees and working groups, as needed.

Should it be beneficial, ACLI is pleased to provide additional information about projects related to structural shifts in the life insurance industry that may merit consideration as a "connected" project.

ACLI recommends the RBC Model Governance (EX) Task Force take a comprehensive view of the RBC framework to promote consistency by expressly encompassing reserves and statutory accounting.

We understand this effort is linked to the industry feedback on the C-1 asset risk charges and the Framework for the Regulation of Insurer Investments – a Holistic Review. However, the memo also expressly contemplates that the Task Force will *"[f]acilitate and oversee coordination and alignment among all NAIC committees/task forces/etc. related to this initiative and implementation of the guiding principles, including the Life Actuarial Task Force (LATF), the Capital Adequacy Task Force (CATF), the Accounting Practices and Procedures Task Force (APPTF), and the Valuation of Securities Task Force (VOSTF)."* The actuarial groups referenced in the memo often work on reserving and asset-adequacy issues.

Given the interconnectivity of RBC with the rest of the U.S. statutory regime, it is appropriate for the Task Force to have comprehensive visibility across the RBC framework and related initiatives. This allows the Task Force to ensure the best possible regulatory solution is pursued for each issue as it arises, which is

essential for striking an appropriate balance that protects policyholders and enables access to innovative and affordable products to close protection gaps.

A comprehensive view of the RBC framework, including reserving, should include the NAIC's related reinsurance efforts.

The reserving and capitalization of reinsurance transactions has been a persistent source of interest due to structural shifts in the life insurance industry and has seen meaningful attention at the technical level. Over the last year, ACLI has seen multiple proposals from a variety of NAIC groups about reinsurance, and ACLI continues to be mindful about the cumulative impact of these proposals. The great majority of this work is being managed by a small group of dedicated and experienced technicians who often view issues through the lens of a specific discipline. While the technical working groups driving the work forward are all working diligently and in good faith, greater oversight and strategic direction from Commissioners of the policy implications of these workstreams is warranted on these high profile and impactful projects to help ensure regulatory changes align with the NAIC's goals.

Adding reinsurance to the Task Force's purview is particularly important given the current international focus on life insurers' asset allocation and use of cross-border asset-intensive reinsurance.[2] The international focus on cross-border reinsurance is an opportunity to communicate the strength of the state-based supervision and its ability to effectively assess and respond to evolutions in the market. Enhancing Commissioner insight into these impactful workstreams would promote harmonization, ensure that work is meeting the NAIC's overarching policy goals, and give Commissioners a broader, big picture view of related workstreams.

ACLI supports developing guiding principles for future RBC adjustments and encourages the principles to include a reference to policyholder protection and closing the protection gap.

The Task Force is developing principles to guide future RBC adjustments, ensuring the framework's integrity, adaptability, global competitiveness, and alignment between risk and capital charges. Clear principles will ensure consistent application of an analytical framework by regulators and promote a transparent, robust process for future RBC adjustments. The memorandum lists preliminary questions for these principles. We think the questions listed in the memo offer a solid foundation on which to lay the RBC principles.

We appreciate the NAIC recognizing the importance of supporting global competitiveness within the draft charges. To this end, we believe it is critically important for the guiding principles to explicitly align with NAIC's policy goals and promote and prioritize balancing outcomes that ensure policyholders are well protected while also enabling the industry to deliver solutions needed to close protection gaps at affordable rates.

While applying a holistic approach to RBC initiatives is important, it is equally important that these initiatives be promptly evaluated and implemented to avoid unnecessary uncertainties for industry. The

[2] The Life Actuarial (A) Task Force has proposed defining asset-intensive reinsurance as reinsurance for life insurance products with significant, inherent investment risk, including credit quality, reinvestment and disintermediation risk. Appendix A-791 of the NAIC's *Accounting Practices and Procedures Manual* defines these terms and lists products that have such risks.

Task Force is in a unique position to prioritize initiatives, address any resource constraints, and promote prompt implementation.

ACLI supports the gap analysis.

ACLI supports the gap analysis. We see value in investigating potential inconsistencies across the solvency framework in methodologies and we are supportive of beginning the gap analysis immediately. The NAIC may wish to consider dividing the gap analysis into two parts. Phase I would identify potential inconsistencies and whether improved consistency could "help the level of precision sought in this project." The work on Phase I could begin immediately. Phase II would recommend whether new methodologies are needed and rank order the issues for prioritization. The development and deployment of the new principles should also help identify which inconsistencies rise to the level of needing a new methodology.

ACLI supports the education and public messaging campaign.

The Task Force charges include a plan to communicate internationally the strengths of the U.S. state-based regulatory system. Despite the recent recognition of the U.S. aggregation method by the International Association of Insurance Supervisors ("IAIS"), ACLI agrees that a proactive educational and communication campaign to highlight the strengths and successes of the RBC and state-based framework at large is essential. Team USA regulators and industry have partnered effectively over the past several years to provide the IAIS with informal methodological and implementation overviews of the Group Capital Calculation and the RBC framework more generally. ACLI looks forward to extending this partnership as the NAIC builds a more formal educational and messaging campaign for the U.S. state-based regulatory system.

Conclusion

ACLI appreciates the opportunity to comment on the proposed Task Force and its goals and charges. Please contact us if there is anything we can to be of assistance as the work proceeds. We would be pleased to lend our support and efforts to aid with your work.

Sincerely,

Mariana Gomez-Vock
SVP, Prudential Policy & International

Carrie Haughawout
SVP, Life Insurance & Regulatory Policy

March 12, 2025

Dan Daveline
Director, Financial Regulatory Services
National Association of Insurance Commissioners
1100 Walnut Street, Suite 1500
Kansas City, MO 64106-2197
Via email: ddaveline@naic.org

Re: RBC Model Governance Task Force

Dear Mr. Daveline,

I write on behalf of Athene Holding (Athene) to express our strong support for the new RBC Model Governance Task Force (Task Force) and its 2025 goals and charges, which form the foundational basis for the NAIC's RBC initiative (Initiative). This Task Force will be uniquely positioned to provide the strategic direction, commissioner-driven oversight, and coordination needed to modernize the U.S. insurance capital framework and advance RBC integrity as previously envisioned in the NAIC Framework for Regulation of Insurer Investments (Investment Framework). The Task Force will be instrumental in addressing key issues in RBC governance, transparency, and data-driven decision making.

This Initiative also lays the groundwork for regulators to account for real-world investment dynamics when calibrating capital charges, advancing the principle of "Equal Capital for Equal Risk." It is a critical and significant step toward establishing RBC as a preeminent global standard, while emphasizing the life sector's evolving and substantive role in financing the real economy and closing the retirement gap in the US.

We offer the following feedback for your consideration:

Support for Guiding Principles and Gap Analysis

Developing clear guiding principles for RBC adjustments—coupled with a robust gap analysis and consistency assessment—is essential to fulfilling the Investment Framework's goal of setting a long-term, strategic direction for investment regulation. The current RBC procedures, while outlining the process for changes, lack overarching principles to determine when adjustments should be pursued and within what parameters.

We believe that RBC methodologies, assumptions, and models must be empirical, quantitative, and internally consistent. As the Task Force develops model governance and validation processes, future and retrospective adjustments should be more data driven. This will allow regulators to focus limited resources on material issues, ensuring that capital works for consumers and underpins next-generation solutions.

Support for NAIC Education and Messaging Campaign

The Initiative will ensure that the RBC system is able to modernize while remaining the strongest insurance capital framework in the world in consumer protection and market solvency and innovation. Despite its strengths, the U.S. state-based system has faced undue and ongoing

scrutiny from some global standard setters and foreign jurisdictions that have stifled their own insurance industry's ability to invest in the real economy and address retirement gaps. As a company with an international footprint, we engage with stakeholders across the globe. In those conversations, we frequently hear criticism and misconceptions about the RBC framework and the state-based system.

Therefore, we applaud the Task Force on its charge to develop educational materials and a public messaging campaign that highlights the benefits and strengths of the RBC framework to ensure the U.S. system remains competitive and influential worldwide. This effort also will bolster RBC as a credible global benchmark and an alternative to Solvency II and the IAIS Insurance Capital Standard. As part of that effort, we encourage the NAIC to work with the Federal Insurance Office and the Federal Reserve (Team USA) in presenting a strong, united front in advocating for the US market before global standard setting bodies and to ensure that our market is not competitively limited based on regulatory choices made in other foreign markets.

We therefore recommend that the NAIC ensure that its messaging campaign also includes proactive advocacy, along with the rest of "Team USA", at the IAIS and with international regulators to promote our state-based system and RBC.

Need to Evaluate Individual Workstreams

While we appreciate the Task Force's position that the work of other RBC-related NAIC groups should not be paused or stopped. Such direction does not preclude, however, the Task Force from evaluating all active workstreams to ensure alignment with the goals of the RBC Task Force Initiative and the Investment Framework. As stated in the Investment Framework, "the goal of the Framework is to set a long-term, strategic direction for investment regulation and ensure current and future initiatives are thoughtfully coordinated and supportive of this holistic direction."

Current workstreams should benefit from the newly developed guiding principles and be consistent with the NAIC's broader direction on solvency regulation. In addition, as part of the planned gap analysis, it is vital to identify any inconsistencies between current initiatives and the existing RBC framework.

The importance of this approach is highlighted by NAIC Securities Valuation Office's (SVO's) ongoing workstream to take over modeling of individual collateralized loan obligations (CLOs) for designation purposes. We believe this workstream conflicts with both the Investment Framework and Initiative in several ways. Specifically, the modeling would (1) create inconsistency in RBC charges across asset classes, violating the principle of Equal Capital for Equal Risk, (2) result in imprecise risk charges, and (3) conflict with the Investment Framework's directive for the NAIC/SVO not to replicate credit rating providers (CRPs).

We therefore recommend the Task Force clarify that regulators will not make final decisions on whether and how to use the SVO's CLO model until after determining whether that workstream is consistent with the goals of the Investment Framework and Initiative.

Conclusion

The RBC Initiative marks a historic turning point in insurance capital regulation - a transformative effort that will redefine how we safeguard policyholders while fueling economic growth. We strongly support the ambitions around this groundbreaking framework, which stands as a testament to the

NAIC's leadership and vision. However, its success hinges on proactive action. The NAIC must address internal inconsistencies and counter external threats, such as offshore regulatory arbitrage, before they erode the RBC framework's integrity. By decisively reconciling these challenges, the NAIC can ensure that the RBC framework not only remains robust and resilient but also continues to set a global standard where true "Equal Capital for Equal Risk" is more than an ideal - it is a reality that protects consumers and fortifies the U.S. insurance system for generations to come.

Sincerely,

Michael Consedine
Executive Vice President
Head of US Regulatory & Government Affairs

AI Anderson Insights, LLC

Christopher Anderson, CFA
Principal
322½ East 50th Street
New York, NY 10022-7902
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March 11, 2025

Director Judith L. French
Commissioner Nathan Houdek
Commissioner Doug Ommen and
Director Michael Wise
Co-Chairs and Co-Vice Chairs of the RBC Model Governance (EX) Task Force

Via Email

Re: Comments on the Risk-Based Capital Model Governance (EX) Task Force

Dear Directors and Commissioners,

The RBC-Based Capital Model Governance Task Force that you are leading certainly complements the work being done with the Framework for Investments. Success on both fronts will facilitate the accomplishment of the NAIC goals of offering enhanced resources to insurance regulators. I hope some observations will be helpful concerning this new project.

This letter recommends a phased approach to accomplishing your goal. As envisioned an initial phase would examine the fundamental causes for insurer distress and insolvencies. It would also review the history of Risk-Based Capital calculations for insurers that result in serious financial difficulty, especially focusing on the predictive value of RBC. It would then map these together. Completion of this phase would lay the groundwork for subsequent work that would be informed by this effort and would have the significant advantage of being evidence-based. As noted here on page three the resources required for successful completion of consulting engagements will depend on the specific elements of various tasks. Subsequent work may well require significantly different resources than needed at inception. An obvious example of a later effort would be to incorporate market changes, both realized and anticipated, utilizing independent consultants with this specific expertise.

So how can it be determined how well the RBC structure is serving regulators today and will in the future? The basic purpose as it was conceived in the late 1980's is relatively straightforward. The goal was to set risk-based levels for Total Adjusted Capital to establish objective standards for regulatory actions. As we all know, at 2.5 times the Authorized Control level an insurer is not subject to regulatory action under the model act but below that regulators may act, and then at even lower levels must take action.

Evaluating the efficacy of the RBC calculation can be challenging for several reasons. First, there have been relatively few failures of life insurers over the years, given their large numbers, making it potentially challenging to attribute failures to specific risks quantified in the formula. This is somewhat counterbalanced by the fact that RBC has been in place since the early 1990's so there is significant history. Another complication is that it is quite possible that failures often result not from a single factor but from combinations of them. Outright fraud is an example of a single factor event, but many insolvencies may be found to be the consequence of multiple elements which can cause financial capacity to decline precipitously.

Of course it is essential to determine the fundamental reasons insurers have required regulatory action in order to take advantage of acquired knowledge and to provide guidance for this project. Even though it is only computed annually, RBC calculations give regulators objective justifications for taking various actions as was originally intended. Additionally it may be at least as important to determine if there are symptoms of serious deterioration that can be detected as well as how early they can be identified. It would also be useful to review false positives and negatives in RBC calculations.

The Weighting of RBC Factors

The most simple explanation for the failure of insurers is that their assets are ultimately insufficient to pay claims. Of course it is true that poor investment practices themselves could be the root cause of failures in some circumstances but that may or may not be the case more widely. Despite this, asset risk is heavily weighted in the present life RBC formula, accounting for over 50% of the calculation. This dominance very well might mask the presence of more fundamental underlying risks that are related to non-investment business conduct. So even if assets turn out to be insufficient that mere fact does not mean that investment practices themselves necessarily are the leading causes of insolvencies.

A comparison of the percentage of RBC factors with life insurer holdings shows the heavy weight of C-1 in the RBC calculation.

AGGREGATED LIFE RBC ANNUAL STATEMENT DATA[1]			
RBC 2022 Data as of 7/6/2023			**Holdings[2]**
Total C-0 Asset Risk Affiliates	15.67		
Total C-1cs Asset Risk Common Stock	25.47		2.2%
Total C-1o Asset Risk - All Other	29.76		97.8%
Total C-1		55.23	100.0%
Total C-2 Insurance Risk	14.47		
Total C-3a Interest Rate Risk	7.97		
Total C-3b Health Care Risk	0.01		
Total C-3c Market Risk	1.64		
Sum C-2 +C-3		24.09	
Total C-4 Business Risk	4.74		
Total C-4 Business Risk Admin Exo.	0.27		
Total	100		
sources:			
[1] Exhibit E, LRBC/WG, 2023 National Meeting Materials 7/24/2023			
[2] 2023 ACLI Life Insurance Fact Book			AI Anderson Insights, LLC

These data raise significant questions:

- Is it likely that asset risk for life insurers is actually double that of insurance, interest rate, health care and market risk combined?
- Is it reasonable to weight the risk of common stock investments more heavily than the total of insurance risk plus all of the C-3 risks when common stock investments amount to slightly more than 2% of assets?
- Is the risk of holding common stock nearly as great as the risk of holding all other invested assets?

These and other apparent anomalies may very well be explainable but they deserve examination. For example, it may well be determined that variances (risks) in liabilities are far better understood and more predictable than variances (risks) in assets and that may account for these results. If so then these relationships may not be unreasonable.

The broader point is that it would be wise to correlate significant risks being managed by insurers with the factors in RBC, even though this may not be done easily. If, for example, it is determined that management quality plays a significant role in insolvencies then that may indicate a need to incorporate that risk in some fashion. Credit Rating Providers focus closely on management quality, considering it to be quite important. Capturing that set of risks in a formula, however, is at least challenging. It could possibly be that symptoms of deficiencies could be observed, but the point is that actual reasons for failures need to be understood and then dealt with as well as possible. This would be a key objective of an initial phase which would prepare for experience-based subsequent work.

How Consultants Can Support the NAIC

The nature of a specific project or project phase will define the resources required. One element of your February 9 memorandum (the "Memorandum") is to appoint an external consultant "to provide objective analysis and technical expertise". Here are three examples directly related to the NAIC to demonstrate how the necessary resources and skills vary from one project to another. As you seek to "prevent distracting from existing priorities" it needs to be appreciated that this is more or less achievable depending on the phase of the work.

As a first example if, as an element of governance, the NAIC were to commission an examination of the SVO, similar to the examinations that the CRPs or insurers themselves undergo, it would likely require minimal involvement by NAIC staff. About the only staff effort would involve providing records such as credit files and ratings history. In this instance the consultant could perform an objective analysis using its technical expertise with relatively little involvement of staff.

In a second example envisioned in the Framework, evaluating the efficacy of Credit Rating Providers would require a far greater use of NAIC resources to work with an independent consultant. Because for very many years the NAIC has acquired vast amounts of ratings data it may well have amassed the largest amount of data of any entity in the world and all of it pertains directly to insurer holdings. In a project such as this the NAIC itself would probably need to compile the ratings history it possesses. That in itself would require the commitment of scarce analytical and technical resources and this may be quite demanding. The consultant, for its part, could analyze this data, ideally combining it with third party data to identify the characteristics of the individual securities, thus producing rich and convincing information on CRP performance on a very granular level. No consultant could do this alone as it would require access to NAIC resources.

This present project is significantly different from the others mentioned above because it is likely that much more substantial NAIC analytical and technical resources would be required as compared to the previous examples. Ideally the first phase of this project would analyze real world examples and experience of insurer distress in evaluating the RBC measures.

In actually implementing this there is one entity at the NAIC that has unparalleled access to this sensitive information and it has had this for many years in its present and previous incarnations. That is the Financial Analysis Working Group. Notably absent from the Memorandum, the FAWG is in a unique position to contribute to the success of this project. In stark contrast to the examples above, the consultant for this project would have to be able to be a very close collaborator with the FAWG and others with specific knowledge. Rather than being able to "avoid distractions from other priorities", the NAIC would need to be fully committed and engaged, expending significant effort by very knowledgeable, and busy, individuals to compile their experiences in order to answer this question: "What are the real reasons insurers fail"?

Despite the effort required the completion of this phase would offer significant benefits. With this knowledge, much of which would come from the NAIC and its members, the consultants could be charged with coordinating an inquiry into determining how well RBC has performed historically. The consultant should also use all available resources such as academic studies.

Next Phase

Building off of the work described here, the next phase would be for a consultant working with the NAIC to use its knowledge and insights into the securities markets as well as all available resources to look into the future and identifying the very gaps that are discussed in the Memorandum. This will increase the likelihood of achieving the goals set forth in the Memorandum.

Summary

In summary, it is recommended that there be a review of the effectiveness of the current RBC process, even as we know it is being enhanced continuously. While it is desirable for the NAIC to conserve regulatory and staff resources, it is clear that this project will likely require far more collaboration than other engagements and cannot simply be delegated to outsiders. Doing this would answer the essential questions are how well RBC meets the needs of regulators. Then it would provide the basis for further enhancements as described in the Memorandum. Completion of a review of actual historical performance and efficacy that is informed by facts and history seems highly appropriate, certainly before commencing "an education and public messaging campaign."

Respectfully submitted,

Copy: Dan Daveline

Amnon Levy
Bridgeway Analytics
Amnon.Levy@BridgewayAnalytics.com

March 12, 2025

Risk-Based Capital Model Governance (EX) Task Force
National Association of Insurance Commissioners
110 Walnut Street, Suite 1500
Kansas City, MO 64106-2197

Subject: Comments on the Risk-Based Capital Model Governance (EX) Task Force, 2025 Goals and Proposed Charges

Dear Director Judith French (OH), Commissioner Nathan Houdek (WI), and Members of the Risk-Based Capital Model Governance (EX) Task Force,

On behalf of Bridgeway Analytics, I appreciate the opportunity to provide comments on the *Risk-Based Capital (RBC) Model Governance (EX) Task Force (RBC-MG-TF), 2025 Goals and Proposed Charges* (The Memo). We commend the NAIC and regulators' continued efforts to modernize investment risk oversight and initiate and sequence the steps needed to achieve the vision of *Equal Capital for Equal Risk*.

The Memo proposes three goals for the RBC-MG-TF in 2025, which align with three of its five charges (paraphrased):

1. **Develop guiding principles**. Develop guiding principles for future quantitative RBC adjustments to align with investment trends, focusing on asset risk precision.
2. **Gap analysis and prioritization**. Perform a comprehensive gap analysis of life RBC to identify inconsistencies, explore whether more consistency would help improve precision, assess whether new methodologies are needed, and prioritize solutions.
3. **Education and messaging campaign**. Design an education and messaging campaign highlighting the RBC framework's strengths and differences across jurisdictions, targeting a domestic audience and a global insurance supervisory audience.

With the following additional two charges (paraphrased):

4. **Coordinate across the NAIC**. Facilitate and oversee coordination and alignment among all NAIC committees/ task forces/etc. related to this initiative and implement the guiding principles.
5. **Create a process for analyzing and adjusting RBC**. Create a process for analyzing both retrospective and future adjustments to RBC, incorporating regular reviews of RBC outcomes and ensuring future adjustments align with guiding principles.

The Memo clearly outlines the framework's need for quantitative principles, which we wholeheartedly agree with. It also references ongoing regulatory efforts to understand the role of RBC. The proposed charges and 2025 goals of the RBC-MG-TF do not include a review of the purpose and the appropriate use of RBC, nor the degree to which components of RBC should be confidential. While we feel that the purpose and use of RBC and its confidentiality should be reviewed and possibly refined, we understand this to be beyond the scope of the request for comment. Thus, our comment letter takes as given that RBC is intended to be a blunt regulatory tool with a narrow use case of helping identify weakly capitalized companies. We also understand that the primary focus is life RBC and the

lack of consistency within the current life asset risk framework, which we can understand given the asset-intensive nature of life companies and associated global trends.[1] Our comment letter shares our reactions to the five charges and associated three goals for 2025.

Reaction from Bridgeway on the three goals for 2025 that align with three of its five charges (paraphrased):

1. **Develop guiding principles**. Given the lack of consistency within the current RBC framework, we fully agree with the need to develop guiding principles for RBC, which The Memo highlights. The Memo outlines questions in which the principles will be used for guidance:
   - When should a particular risk be addressed in the RBC model?
   - What level and type of data and analysis are needed to support the setting of capital factors?
   - How should new and emerging risks and asset types be treated if a capital framework has not yet been developed for them?
   - What level of statistical safety is to be targeted by the model or, if not, a single target, and how should such tailored safety targets be determined?
   - When should the calibration of risks to capital factors be re-evaluated?

We outline additional questions for regulators to consider:

- How should the RBC model risk governance framework be structured (the question is related to, but broader than, several posed in the memo)? Actuarial Standard of Practice No. 56, Modeling (ASOP No. 56) defines Model Risk as *the risk of adverse consequences resulting from reliance on a model that does not adequately represent that which is being modeled or the risk of misuse or misinterpretation*. A helpful point of reference is the *Draft GOES Model Governance Framework*.
- How should asset risk accounted for in reserves be offset in RBC calculations?
- Should Risk-Based Capital (RBC) requirements align with Statutory Accounting principles? If so, how should the differences in asset valuation between directly held assets and those held through securitizations be addressed? We use *valuation arbitrage* to reference differences in measuring carrying values, which can create incentives to hold assets in one form over another. Because RBC is measured as a percentage of an asset's carrying value, these valuation differences can also impact perceived RBC arbitrage.[2]
- How should the American Academy of Actuaries, *Principles for Structured Securities RBC*, which regulators at the RBC Investment Risk & Evaluation (E) Working Group ratified, fit into the principles?
- How should the interaction/co-dependence of risk factors be recognized and treated? Should the current differentiated covariance treatment across asset classes (e.g., Common Stock) be reviewed?

[1] While life companies' shifting investment strategies have received the lion's share of attention, the trends are broad, which we discuss in our report, *The Shifting Investment Strategies Helping Address The P&C Insurance Crisis: Implications For Investment Risk Oversight*.

[2] An extreme example is an aircraft engine lease, which cannot be admitted and would, therefore, be assigned 0 RBC. If securitized appropriately, the debt and residual would generally be admitted and have a positive carrying value and, thus, a positive RBC. Despite the aircraft engine lease receiving a 0 RBC, insurers generally prefer to hold the securitized version since the added surplus from the positive carrying value more than offsets the positive RBC. Another example is CLOs. Non-AVR filers generally carry the underlying loans' rated B-CCC measured at the lower of amortized cost and fair value if held directly. However, when packaged into CLO tranches, ~85% of the capital structure receives NAIC 1 and 2 Designations and would be measured at amortized cost. These differences in valuation create meaningful incentives and impact RBC calculations, leading to what appears to be RBC arbitrage.

2. **Gap analysis and prioritization**. Analyzing gaps and assessing the materiality of each identified issue is critical. Regulators should consider structuring the process sequentially, with the principles first agreed on. Identified gaps can then be assessed against each principle.

3. **Education and messaging campaign**. With principles in hand, positioning the RBC framework and its aspirational qualities will be natural. The timing of the campaign is critical in the context of the International Association of Insurance Supervisors (IAIS) adoption of International Capital Standards (ICS) and the positioning of the Aggregation Method (AM) as producing comparable outcomes. The final AM will be assessed with implementation, which is aligned in timing with ICS implementation assessments in other jurisdictions (i.e., self-assessment in 2026).

   We presume this effort will be closely aligned with the Aggregation Method Implementation (G) Working Group, whose charges include reviewing the capital regulation of U.S. groups and their potential for comparable implementation of the ICS and coordinating the implementation of the U.S. AM. Regarding better understanding differences across regulatory jurisdictions, a high-level articulation of key features across targeted regimes will be helpful when designing the messaging campaign (e.g., ICS is market value-based while RBC relies more on amortized cost). Some of these differences are currently being deliberated at the Life Actuarial (A) Task Force (LATF), as it works through assessing the measurement and treatment of assets supporting reinsurance transactions in foreign jurisdictions.

Bridgeway's reaction to the additional two charges (paraphrased):

4. **Coordinate across the NAIC**. The model risk governance framework we suggest above should articulate the various parties that need to be involved and coordinated with (e.g., model owners and model users).
5. **Create a process for analyzing and adjusting RBC**. The model risk governance framework we suggest above should help set a foundation for creating this process.

We are encouraged by and optimistic about the NAIC's efforts. Bridgeway Analytics is committed to supporting these initiatives and looks forward to continued engagement with the RBC-MG-TF and the NAIC. Thank you for considering our views on this critical issue. We welcome further discussions or clarifications as the RBC-MG-TF progresses with this important work.

Sincerely,

Amnon Levy
Founder and Chief Executive Officer

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 issues at hand. Methodologies are available to the public through an email request at support@bridgewayanalytics.com. For more information, visit www.BridgewayAnalytics.com.

March 12, 2025

Director Judith French, Co-Chair
Commissioner Nathan Houdek, Co-Chair
Risk-Based Capital Model Governance (EX) Task Force

Re: Risk-Based Capital Model Governance (EX) Task Force 2025 goals and proposed charges

Dear Co-Chairs French and Houdek:

On behalf of the American Academy of Actuaries (Academy),[1] we appreciate the opportunity to provide comments to the Risk-Based Capital (RBC) Model Governance (EX) Task Force (Task Force) on the 2025 goals and proposed charges. As a long-time partner of the NAIC, the Academy looks forward to continuing our collaborative engagement with this new Task Force. As the preeminent experts in risk and financial security, the Academy's members are ideally positioned to offer sound, objective expertise and advice as the Task Force turns its attention to the existing RBC models and framework.

The Academy supports the 2025 goals and proposed charges. We believe that developing guiding principles and completing a gap analysis to promote consistency will be beneficial to regulators, regulated entities, and other external stakeholders. We look forward to working with the Task Force, external consultants, and stakeholders to support these objectives. As the professional actuarial association with the distinct focus on U.S. public policy and the U.S. actuarial profession, we also recognize the value of state regulation. We share your desire to ensure that our international partners understand and recognize the differences across the regulatory jurisdictions. In a global environment, recognizing, defining, and communicating the strengths of the U.S. RBC framework is a valuable and necessary effort.

Looking toward the development of guiding principles, we remind the Task Force of principles that the Academy shared in 2023 with the Risk-Based Capital Investment Risk and Evaluation (E) Working Group (RBCIRE).[2] As we consider general principles, the Task Force may consider the following as a starting point:

1. **The RBC formula is a filtering tool**. The purpose of RBC is to help regulators identify potentially weakly capitalized insurers; therefore, changes that have a small impact on RBC ratios may not justify a change to the RBC formula.
2. **Emerging risks require regulatory scrutiny**. Emerging risks create concern for regulators, with existing regulatory tools considered alongside RBC for addressing newer risks. RBC needs to be considered when there are material solvency issues.
3. **RBC is based on statutory accounting**. RBC requirements should generally reflect the impact of risk on statutory surplus. It is important to understand that changes in accounting treatment will affect RBC.

[1] The American Academy of Actuaries is a 20,000-member professional association whose mission is to serve the public and the U.S. actuarial profession. For 60 years, the Academy has assisted public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

[2] https://www.actuary.org/sites/default/files/2023-12/Life-presentation-updatedprinciplesstructuredsecuritiesrbc.pdf

4. **Appropriate risk measures**. Each component of RBC is designed for a particular risk profile. Different risk profiles may call for different risk measures (e.g., percentile vs. CTE)

With respect to performing a comprehensive gap analysis, we offer for the Task Force members' consideration a Comparison of the NAIC Life, P&C and Health RBC Formulas provided to the NAIC in 2002. This report provides an overview outlining the three formulas at that time, presented side by side, a summary of their differences, and detailed grids delineating how each formula handles the various risk elements faced by Life, P&C, and Health companies. If it is useful to the Task Force, the Academy would be happy to produce an updated version of the 2002 comparison, starting with the current versions of the three formulas.

As the Task Force works with outside consultants, interested parties, and other stakeholders, the Academy looks forward to being an active and reliable resource for regulators and industry. With our ongoing engagement throughout the NAIC, along with our unique actuarial perspectives and expertise across health, life, property/casualty, and financial reporting and risk management, we look forward to offering constructive and balanced analysis. We look forward to the continuing public dialogue and collaborative efforts as the Task Force begins its work.

If you have any questions or would like to discuss these comments further, please contact Katie Dzurec, director, public policy outreach (dzurec@actuary.org, 202-785-6929).

Sincerely,

Susan Kent
Vice President, Casualty

Annette James
Vice President, Health

Jason Kehrberg
Vice President, Life

Steve Malerich
Vice President, Risk Management & Financial Reporting

AMERICAN ACADEMY of ACTUARIES

To: Lou Felice, Chair, NAIC Risk-Based Capital Task Force

From: Academy Joint RBC Task Force

Re: Comparison of the NAIC Life, P&C and Health RBC Formulas

Date: February 12, 2002

As requested, the following is a current draft to update our comparison dated December 1, 1999 of the three NAIC RBC formulas (Life, P&C and Health). The purpose of this comparison is to document where the formulas are substantially similar, where they differ, and the reasons for any differences that exist (as understood by one or more of the actuaries). The first comparison was provided to the NAIC in December of 1998. In several places we have noted work in progress on one or more of the formulas.

This report is structured into three sections as follows:

I. **Overview** - outlining the three formulas, side-by-side

II. **Summary of differences** - describing, in brief, the principal differences between the three formulas, and the reasons behind those differences (our understanding of the reasons). This is based on the 2001 formulas as adopted in July 2001.

III. **Detailed grids** - delineating how each of the three formulas handle the various risk elements faced by Life, P&C or Health companies. Identified risks and risk factors which are not reflected in any of the three formulas have been noted in footnotes to the Insurance Risk, Credit Risk and Miscellaneous Risk grids in the same way as the December 1999 Report. We are aware of the "Branded Risk Classifications" being used by the Risk Assessment Working Group (see attached) and the attempt to compare the Fed risk classifications to those identified by the NAIC. We do not believe that review of these items is appropriate by our Joint Task Force. Please be aware that the list of risk factors in these grids is not exhaustive.

Any questions regarding the attached material should be directed to the Academy through Meredith Detweiler, Financial Reporting Policy Analyst at the Academy at (202) 223-8196 or detweiler@actuary.org.

1100 Seventeenth Street NW Seventh Floor Washington, DC 20036 Telephone 202 223 8196 Facsimile 202 872 1948

Comparison of the NAIC Life, P&C and MCO RBC Formulas
Summary of Differences

	Where found in the NAIC RBC formula (in whole or in part)		
Risk category	Life	P&C	Health
(Invested) Asset			
Fixed Income	C1o	R1	H1
Equity	C1cs[1], C1o	R2	H1
Derivatives/replications	C1	-	-
Credit (non-invested assets)			
Reinsurance[2]	C1	R3, R4	H3
Heath Provider	C3b	-	H3
Other (misc. rcvbles)	-	R3	H3
Insurance			
Amount at risk	C2 (Life)	-	-
Premium	C2 (A&H)	R4	H2
Reserve	C2 (A&H)	R5	-
Interest rate risk	C3a	-	-
Business risk [3]			
Expenses	C4b	R5	H4
Separate Accounts	C4a	-	-
Guaranty fund	C4a	-	H4
Growth	-	R4, R5	H4
Other	C4a	R4, R5	-
Off balance sheet risk	C0	R0	H0
Investments in Insurance affiliates[4]	C0,C1o	R0,R2	H0,H1

[1] Non-affiliated common stock plus common and preferred stock of non-insurance affiliates are in C1cs. Other types of equity (or non-fixed income) assets are in C1o.

[2] This chart lists the predominant location of reinsurance risk in the P&C RBC formula. Under certain conditions (e.g. that found in a company that cedes 100% of its business), all the reinsurance credit risk would be in R3.

[3] Depending how one defines business risk, the use of company experience adjustments (R4, R5) and the company expense ratio (R5) in the P&C RBC calculation may be considered a reflection of business risk.

[4] When the asset is held at market value and the market value exceeds the statutory book value, RBC on the allowed excess is included in C1o, R2 and H1.

Comparison of the NAIC Life, P&C and MCO RBC Formulas
Summary of Differences

Description of RBC components

Life RBC

C0 Insurance affiliate investment and (non-derivative) off-balance sheet risk
C1cs Invested common stock asset risk
C1o Invested asset risk, plus reinsurance credit risk except for assets in C1cs
C2 Insurance risk
C3a Interest rate risk
C3b Health provider credit risk
C4a Business risk - guaranty fund assessment and separate account risks
C4b Business risk - health administrative expense risk

Company action level RBC =

$$C0 + [(C1o + C3a)^2 + (C1cs)^2 + (C2)^2 + (C3b)^2 + (C4b)^2]^{1/2} + C4a$$

P&C RBC

R0 Insurance affiliate investment and (non-derivative) off-balance sheet risk
R1 Invested asset risk - fixed income investments
R2 Invested asset risk - equity investments
R3 Credit risk (non-reinsurance plus one half reinsurance credit risk)
R4 Loss reserve risk, one half reinsurance credit risk, growth risk
R5 Premium risk, growth risk

Company action level RBC =

$$R0 + [(R1)^2 + (R2)^2 + (R3)^2 + (R4)^2 + (R5)^2]^{1/2}$$

Health RBC

H0 Insurance affiliate investment and (non-derivative) off-balance sheet risk
H1 Invested asset risk
H2 Insurance risk
H3 Credit risk (health provider, reinsurance, misc. receivables)
H4 Business risk (health administrative expense risk, guaranty fund assessment risk, excessive growth)

Comparison of the NAIC Life, P&C and MCO RBC Formulas
Summary of Differences

Company action level RBC =

$$H0 + [(H1)^2 + (H2)^2 + (H3)^2 + (H4)^2]^{1/2}$$

Comparison of the NAIC Life, P&C and Health RBC Formulas
Summary of Differences

Invested Asset Risk

The risk factors for investment grade bonds are the same for the P&C and Health formulas. The Life formula reflect new pre-tax factors as well as tax adjustment factors which recognize the more immediate impact of the tax effect (based on deferred tax accounting per SSAP No. 10 *Deferred Taxes*) starting in 2001. For other investments, there is one set of risk factors in the Life RBC formula, and a different set in the P&C and Health RBC formulas. The factors differ for the following reasons:

- Different accounting bases (e.g. for bonds class 3-5, P&C and Health use market, Life uses amortized cost and Life has a requirement for AVR.)
- Different level of significance to the industry (e.g. mortgage investments are much more common for Life insurers than P&C insurers or Health entities, hence the risk factors are much more detailed for Life than P&C or Health. Also, property can be much more important for a Health entity than a Life or P&C insurer when that property is a hospital or other part of the health-care delivery system, hence the greater Health focus on property.).
- Different risk assessment assumptions (e.g. the Life common stock risk factor of 30% pre-tax assumes a two year holding period, effect of losses at any time and a 5% probability of ruin. The P&C and Health common stock risk factor of 15% assumes a one year holding period, recognizes only losses at the end of the first quarter and a 1% expected policy holder deficit.)

The Life and P&C formulas have invested asset default risk[1] split into two covariance terms. For P&C the split is between fixed income risk and equity risk. This P&C split is based on an analysis of common stock versus bond risk correlation. For Life the split is between common stocks (all unaffiliated plus non-insurance affiliated common and preferred) and all other asset default risk. The Health formula includes all invested asset risks in one covariance term. The Health RBC Working Group received an Academy proposal to separate assets in a slightly different manner during 2001. Review of this proposal did not occur in 2001.

The Health formula contains asset risk charges for furniture and equipment, due to their importance in health care delivery (e.g. MRI machines, hospital beds). These factors also apply to admitted asset values for EDP equipment and software. The other formulas instead rely exclusively on admitted/non-admitted asset rules for these items.

The Life RBC formula contains asset risk charges for derivatives and replications (synthetic assets). The P&C formula will have special treatment of replications beginning in 2002. It also

[1] Asset default risk includes both the risk of default interest and principle and the potential for a change in market value due to a lower credit rating.

applies new rules to Modified Coinsurance and Funds Withheld Reinsurance so that the assuming carrier will apply RBC factors (C1cs, C1o and C3) to the assets related to the coinsurance/reinsurance.

Credit Risk

The three formulas treat credit risk very differently. The items that get risk charges differ, the sizes of the risk charges differ, their placement in the covariance formula differs, and the treatment of ceded amounts ("cedes") to affiliates differs.

The LRBC formula reflects only reinsurance credit risk and health provider capitation credit risk (starting in 1998), with no credit risk charge for other receivables. The reinsurance credit risk charge is 0.8% pre-tax (with the tax adjustment factor of .35, the post-tax value remains 0.5%) of ceded balances, based on the understanding that this risk is comparable to a class 1 or class 2 bond, with an offset for funds held. The resulting risk charge is included in C1o, typically the biggest item for life insurers. There is no charge for cedes to affiliates if the affiliate is 100% owned by the company in question. All other affiliate cessions are treated the same as cedes to unrelated entities. (The capitation credit risk charge is by itself in the Life covariance formula, and uses the same format and factors as the HRBC formula. See the Health discussion below for more details.)

The P&C formula applies a risk charge to most receivable items from the balance sheet that are not already reflected via non-admitted asset rules. The charge for ceded reinsurance is 10% of ceded balances, with the 10% based on judgement, and with no offset for funds held. The resulting reinsurance credit risk charge is split evenly between R3 and R4 (the latter is frequently the biggest covariance item for P&C insurers). There is no charge for cedes to any U.S. affiliates, regardless of ownership percentage or hierarchy, or certain pools. The risk charges for non-reinsurance related credit risk are generally smaller than the reinsurance credit risk charges, and are all in R3.

The HRBC formula generally follows the Life formula for reinsurance credit risk charges, the P&C formula for non-reinsurance credit risk charges and adds two additional types of credit risk charges: one for credit risk arising from capitation[2] and another for credit riak arising from health care receivables. The capitation charge is a percentage of capitations paid to providers (roughly equal to two weeks of paid capitations[3]), or a larger percentage of capitations paid to intermediaries and other Health entities, reduced for any security pledged by the receiving entity.

[2] Capitation payments to providers or intermediaries are effectively advance payments for service to insureds. The credit risk is that the provider or intermediary will not be able to provide the prepaid service, requiring the insurance company to pay again for providing the service to insureds.

[3] The implication here is that, on average, two weeks of capitation payments will be lost before realizing that the provider has stopped fulfilling its obligations and capitation payments are ceased.

Comparison of the NAIC Life, P&C and Health RBC Formulas
Summary of Differences

The total credit risk charge is by itself in the covariance formula. (The capitation risk charge was also introduced into the Life formula, starting in 1998).

Insurance Risk

Since the insurance products are different[4] for Life, P&C and Health companies, the insurance risk formulas are different.

The LRBC formula essentially has two different approaches to insurance risk, one for life products and one for health products. The life insurance risk charges are based on the net amount at risk. The health insurance risk charges are based on (Exhibit 9 claim[5]) reserves and premiums, and have been modified to bring them in line with the Health formula[6]. There is recognition of the insurer's size (measured by the amount of exposure), but not its experience. All the resulting risk charges are included in one covariance item. The Life formula does not include any factor for the risk of increased growth. The Life formula does not include any factor for growth. There is no C-2 charge for annuities or surrender-value portion of life products, due to the understanding that statutory reserves for companies with these products already provide for this risk.[7] The C-2 factors for 2001 for life insurance and LTC are unchanged. Higher "pre-tax" factors have been also determined such that after applying a tax-adjustment factor of .35, the post-tax RBC values for 2001 are essentially the same as the direct use of 2000 factors. See below for details of the combined insurance/asset risk under Interest Rate Risk

The P&C RBC formula has factors applied to (loss and loss expense) reserves and premiums. There is no recognition of the insurer's size, but there is recognition of its own experience. The resulting risk charges are split into two covariance terms, one for reserve risk and one for premium risk. There is also a growth charge, based on the group's (not just the company's)

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[4] The health insurance risks being the one exception.

[5] Exhibit 9 claim reserves represent reserves for existing obligations, but for which the underlying service has not been provided or payment due. For example, for the 12/97 statement, the reserve for a medical claim that has yet to be presented but for which the treatment date was 11/97 would be included in Exhibit 11, while the disability income payments due in 1998 resulting from a covered 1997 disabling event would be included in Exhibit 9.

[6] The LRBC formula retains a surcharge for certain Individual Medical premiums relative to the "standard" risk factor for Group premiums. The HRBC formulas never had a surcharge.

[7] This reflects a major difference in reserving philosophy between life insurance and casualty insurance. Life insurance reserves are set so as to accommodate a normal range of variation in results. Property & casualty insurance reserves are set on a best estimate basis, such that half the time the ultimate payouts will be greater than the reserve, and half the time they will be less than the reserve. Therefore, statutory surplus for life companies is sometimes thought of as protecting against unusual (unfavorable) variation in results, with reported reserves (including additional actuarial reserves if considered necessary as part of the actuarial opinion) covering normal variation, while statutory surplus for P&C companies is thought of as protecting against all unfavorable variation in results. This major difference in reserving philosophies is beyond the scope of this summary / comparison.

written premium growth for the last three years, which increases both the reserve and the premium risk charges for growth over 10%.

The HRBC formula has factors applied to premiums but not reserves (the health products usually written by a Health entity are not believed to generate Exhibit 9-type reserves). There is recognition of the insurer's size but not its experience. Insurance risk is included in a single covariance item. A growth charge is included in the HRBC formula, but it is treated as a business risk, not an insurance risk since it relates to relative changes in RBC to changes in premium - suggesting a change in types of risks accepted.)

Changes in 2001 were made to the LRBC formula to recognize the risks of different types of disability income insurance products and use a new set of factors based on updated data and a new model for evaluating the risk of ruin. The HRBC Working Group plans to review any changes implemented for the LRBC formula for inclusion in the 2002 HRBC formula.

Interest Rate Risk/Cash Flow Needs

This risk is currently reflected only in the Life RBC formula. A more robust approach for the Life RBC formula was adopted in 2000 for companies with specific risk characteristics (highly interest sensitive product and selected investments). The after-tax factors for 2001 are essentially unchanged. Pre-tax factors were developed such that after a tax adjustment factor of .35, post-tax RBC in 2001 is comparable to that for 2000.

A proposal for reflecting P&C interest rate risk was turned down as too complicated, especially relative to its perceived significance to P&C solvency regulation. For Health entities, concerns for developing liquidity risk measures are being addressed by the Health Entities Working Group.

Business Risk

This risk is recognized explicitly in the LRBC and HRBC formulas but not in the P&C formula.

The LRBC business risk factor was based primarily on litigation and guaranty fund risk, a factor applied to separate account reserves was added in 1999. A charge related to Health Administrative Expenses is included to keep that Life formula in line with the Health formula. The Health Administrative Expense charge is included under the radical in the covariance formula, a separate item. The RBC for other business risk is outside the radical in the Life RBC formula.

The HRBC business risk calculation generally follows the Life formula approach mentioned above, except that the risk related to guaranty fund assessments is applied against premiums subject to assessment and all business risk is in a single covariance item, under the radical. In

addition, HRBC business risk (found in H4) includes a growth charge based on the one year growth in a component of H2, where this growth is greater than the growth in the underlying revenue plus 10%.

The P&C RBC formula does not explicitly recognize business risk, except that the reserve and premium risk items reflect company loss experience, and the premium risk item incorporates the company's expense ratio.

Off Balance Sheet Risk

All the formulas follow essentially identical approaches for these risks.

Investments in Insurance Affiliates

All the formulas now follow an approach for common and preferred stock investments in insurance affiliates that potentially applies different risk factors to the book value of affiliates and to the excess (based on market value), if any. There are subtle but important differences.

The risk charge relating to the book value is included in the C0, R0 and H0 components. Only the P&C formula recognizes investments in affiliates' bonds as affiliate investments. None of the formulas provide special treatment to investments in affiliates that show up in the Other Invested Asset schedule (e.g. Texas Lloyds companies common in P&C insurance). Both the P&C and Health formulas cap the charge at the carrying value for the subsidiary, with no such cap in the Life formula. For insurance affiliates not in the US or Canada, the Life RBC and Health RBC formulas apply a charge of 100% while the P&C RBC formula applies a charge of 50%. For 2001 the Life RBC formula does not recognize Health RBC filers as insurance affiliates (they are treated as non-insurance affiliates[8]).

Beginning in 2000, there is also a charge for insurance subsidiaries held at market value. The excess of carried market value over book value has a 22.5% charge applied (for Life RBC this is the after tax charge), to be placed in the C1o[9], R2 and H1 components of the respective RBC formulas.

Investments in Non-Insurance Affiliates

All of the formulas apply a similar approach for this risk but the factors differ: 22.5% for P&C RBC, 30% for Health RBC and 30 % pre-tax factor for Life RBC.

[8] We believe that this is an inadvertent error due to not having a specific live or instruction to report the Health RBC amount.
[9] The 22.5% represents the post-tax value.

Comparison of the NAIC Life, P&C and Health RBC Formulas
Summary of Differences

Covariance Adjustment

All the formulas contain a covariance adjustment. (This adjustment reflects the fact that the cumulative risk of several independent, i.e. uncorrelated, items is less than the sum of the individual risks[10].) All the formulas keep insurance affiliate equity investment risk and off-balance sheet risk out of the covariance adjustment. The formulas vary, however, in which items within the covariance adjustment are assumed to be uncorrelated to each other.

The LRBC formula combines reinsurance credit risk, interest rate risk and most asset default risks in a single covariance item, i.e. it treats these risks as if they are correlated. The remaining piece of credit risk (health provider credit risk) and the non-affiliated common stock asset risk are treated as two separate covariance items. All insurance risk is combined into a single covariance item. Business risks are split into two covariance items, one piece (health administrative expense risk) inside the covariance formula, and the remainder outside the covariance formula. In a number of items under the radical varies.

The P&C RBC formula separates asset risks into two separate covariance components, fixed income asset risk and equity asset risk. Credit risk is also usually split[11], with half of reinsurance credit risk included with other credit risk in a single covariance item, and the other half of reinsurance credit risk added to reserve risk[12]. Insurance risk is split into two covariance items (reserve risk and premium risk). Business risk is only reflected to the extent it is associated with premium or reserve adequacy, hence it is combined with the premium and reserve risk items. Interest rate risk is not reflected.

The HRBC formula includes all of asset risk in one covariance item, all insurance risk in another covariance item, all credit risk in a third covariance item, and all business risk in a fourth covariance item.

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[10] The adjustment follows these steps:

a. Add together items that are believed to be correlated, so that what is left is groups of risk items believed to be substantially uncorrelated to each other.
b. Square these resulting groups.
c. Add the resulting squares together.
d. Take the square root of the result.

[11] The word "usually" refers to the fact that credit risk treatment under the P&C formula can vary, depending on the relationship of reserve risk to reinsurance credit risk. Under the formula, most companies will see the covariance treatment described above, but shell companies or companies that cede substantially all their business will see all credit risk included as a single covariance item.

[12] The split of reinsurance credit risk in the P&C formula was a compromise between the desire for the charge to remain significant after covariance (accomplished by adding the charge to frequently the largest item in the P&C covariance calculation - reserve risk), and the acknowledgement that many reinsurer insolvencies are caused by things other than reserve risk.

Comparison of the NAIC Life, P&C and Health RBC Formulas
Summary of Differences

The covariance adjustment drastically reduces the importance of the smaller items, and increases the dominance of the biggest items affected by the adjustment[13]. The dominating items vary for Life, P&C and Health companies. In addition, the number of items and how they are combined under the radical effects the impact. Life insurers tend to have asset risks (other assets in C1o) dominate their covariance adjustment. Health entities tend to have underwriting risk (H2) dominate. P&C insurers tend to have insurance risk dominate, with reserve risk (R4) dominating for commercial lines companies, a mix of premium (R5) and reserve risk for personal lines companies, and premium risk dominating for start-ups. The number of items under the radical is 5 for Life, 4 for Health, and 5 for P&C.

Taxes

As noted throughout, the Life RBC formula has tax factors to adjust all risk values to consistent after-tax values. Most were already on an after-tax basis in 2000. The P&C and Health RBC formulas did not change any risk factor for changes in deferred tax accounting under codification for 2001, hence the current changes for these two formulas still retain the same implicit tax assumptions they have in the past.

The Life RBC formula includes an expanded "sensitivity test" reporting pre-tax RBC values and modified TAC (without DTAs and DTLs). This allows the regulator to analyze the full sensitivity test or anything in between which may be appropriate depending on taxes paid, tax-sharing agreements, splits between income tax and capital gain tax for carrybacks, etc. The other two RBC formulas can also be reviewed using modified TAC to exclude all or part of DTAs and DTLs but there is no adjustment to the RBC values available.

All three formulas include the values of DTAs and DTLs in TAC.

[13] This can be seen from the following simplified example, where only two items are contained in the covariance adjustment.

A	B	A+B		$(A^2+B^2)^{0.5}$	% reduction in B's influence
10	1	11	vs	10.05	95%
10	5	15	vs.	11.18	76%
10	9	19	vs.	13.45	62%

Comparison of NAIC Life, P&C and Health RBC Formulas
Detailed Grid – 2001 Asset Risk Factors

	L&H Ins. Cos.			P&C Ins. Cos., Health Entities	
	Statement Value	Pre-Tax RBC %	Tax Adjustment %	Statement Value	After-tax RBC %[1]
1. **Bonds** (Long-Term & Short-Term) Class 1 - U.S. Govt. Backed	Amort. Cost	0.0%	n/a	Amort. Cost	0.0%
Class 1 - Other	Amort. Cost	0.4%	26.25%	Amort. Cost	0.3%
Class 2	Amort. Cost	1.3%	26.25%	Amort. Cost	1.0%
Class 3	Amort. Cost	4.6%	26.25%	Lower Amort. Cost/Mkt.	2.0%
Class 4	Amort. Cost	10.0%	26.25%	Lower Amort. Cost/Mkt.	4.5%
Class 5	Amort. Cost	23.0%	26.25%	Lower Amort. Cost/Mkt.	10.0%
Class 6	Lower Amort Cost/Mkt.	30.0%	35.0%	Lower Amort. Cost/Mkt.	30.0%
U.S. Gov Agency Class 1 Affiliated	Amort. Cost	0.4%	26.25%		
U.S. Insurers	Same		Same based on Class	Same based on Class	RBC of Sub[1]
Other Insurers	Same		Same based on Class	Same based on Class	50.0%
Investment	Same		Same based on Class	Same based on Class	RBC of Sub[1]
Other	Same		Same based on Class	Same based on Class	22.5%
Bond size factor		Based on # of bonds			Based on # of bonds
2. **Preferred Stocks**					
a. Sinking Fund (unaffiliated)					
Class 1	Amort. Cost	1.1%	26.25%	Amort. Cost	2.3%
Class 2	Amort. Cost	3.0%	26.25%	Amort. Cost	3.0%
Class 3	Amort. Cost	7.2%	26.25%	Lower Amort. Cost/Mkt.	4.0%
Class 4	Lower Amort. Cost/Mkt.	15.0%	26.25%	Lower Amort. Cost/Mkt.	6.5%
Class 5	Lower Amort. Cost/Mkt.	25.0%	26.25%	Lower Amort. Cost/Mkt.	12.0%
Class 6	Lower Amort. Cost/Mkt.	30.0%	35.0%	Lower Amort. Cost/Mkt.	30.0%

[1] These are approximate rounded values. The formula uses the unrounded result of the Pre-Tax RBC% times (1 minus the Tax Adjustment %).

Comparison of NAIC Life, P&C and Health RBC Formulas
Detailed grid - Asset Risk Factors

b. Perpetual					
(unafffiliated)					
Class 1	Cost	1.1%	26.25%	Mkt. Val.	2.3%
Class 2	Cost	3.0%	26.25%	Mkt. Val.	3.0%
Class 3	Cost	7.2%	26.25%	Lower Cost / Mkt.	4.0%
Class 4	Lower Cost / Mkt.	15.0%	26.25%	Lower Cost / Mkt.	6.5%
Class 5	Lower Cost / Mkt.	25.0%	26.25%	Lower Cost / Mkt.	12.0%
Class 6	Lower Cost / Mkt.	30.0%	35.0%	Lower Cost / Mkt.	30.0%
c. Affiliated					
U.S. Insurers	Cost	RBC of Sub	0	Cost	RBC of Sub[1]
Other Insurers	Cost	100.0%		Cost	50.0% (100% Health)
Investment Subs	Cost	RBC of Sub	0	Cost	RBC of Sub[1]
Other	Cost	20.0%	0	Cost	22.5%(30% Heatlh)
d. **Common Stocks**					
Unaffiliated					
Non- Government					
MM Funds	Mkt. Value	0.4%	35.0%	Mkt. Value	0.3%
Fed Home Ln Bnk	Mkt. Value	1.1%	35.0%	Mkt. Value	15.0%
Private Common	Mkt. Value	30.0%	35.0%		
Net Other Common	Mkt. Value	22.5% - 45.0%[2]	35.0%	Mkt. Value	15.0%
Affiliated (non-0 component)					
U.S. Insurers	Excess of Adj. Mkt Value over Stat B.V.	34.6%	35.0%	Excess of Adj. Mkt Value over Stat B.V.	22.5%
Investment Subs	Various	Adjusted RBC of Sub[3]		Various	RBC of Sub[1]
Investment in Parent		46.2%	35.0%		
Other	Various	46.2%	35.0%	Various	22.5%
Affiliated (0 component)					
U.S. Insurers	Stat. B. V.	Adjusted RBC of Sub[3]	35.0%		
Canadian Life Subs.		Adjusted MCCSR[4]	35.0%		
Other Insurers	Stat. B.V.	100.0%	0.0%	Stat. B.V.	50.0%
e. **Mortgage Loans**					
a. In good standing		Min	Base	Max	
Original (unrestructured):					
Govt. Insured	O / S Principal	0.14%	26.25%	O / S Principal	5.0%
OtherResidential (1-4)	O / S Principal	0.68%	26.25%	O / S Principal	5.0%
Farm / Agricultural	O / S Principal	2.60%	26.25%	O / S Principal	5.0%
Other Commercial	O / S Principal	2.60%	26.25%	O / S Principal	5.0%

Comparison of NAIC Life, P&C and Health RBC Formulas
Detailed grid - Asset Risk Factors

Restructured (all)	Adj O/S Principal	9.0%[5]	26.25%	Net O/S Principal[6]	5.0%
. In Default - Not in Process					
Govt. Insured	O/S Principal***	0.27%[7]	26.25%	Net O/S Principal[6]	5.0%
Other Residential (1-4)	O/S Principal***	1.40%[7]	26.25%	Net O/S Principal[6]	5.0%
Farm/Agricultural	O/S Principal***	18.0%[7]	26.25%	Net O/S Principal[6]	5.0%
Other Commercial	O/S Principal***	18.0%[7]	26.25%	Net O/S Principal[6]	5.0%
. In Process of Foreclosure					
Govt. Insured	O/S Principal***	0.54%[7]	26.25%	Net O/S Principal[6]	5.0%
Other Residential (1-4)	O/S Principal***	2.70%[7]	26.25%	Net O/S Principal[6]	5.0%
Farm/Agricultural	O/S Principal***	23.0%[7]	26.25%	Net O/S Principal[6]	5.0%
Other Commercial	O/S Principal***	23.0%[7]	26.25%	Net O/S Principal[6]	5.0%

Comparison of NAIC Life, P&C and Health RBC Formulas
Detailed grid - Asset Risk Factors

	L&H Ins. Cos. Statement Value	2001 Pre-Tax RBC %	Tax Adj %	P&C Ins. Cos., Health Entities Statement Value	2001 RBC %
Real Estate					
Acquired by Foreclosure	Depr. Cost Net of Encumb.	23.0% on Net plus 20.0% on Encumb*	35.0%	Depr. Cost Net of Encumb.	10.0% on Net plus Encumb.
Other - Incl. Co. Occupied	Depr. Cost Net of Encumb.	15.0% on Net plus 12.0% on Encumb*	35.0%	Depr. Cost Net of Encumb.	10.0% on Net plus Encumb.
Other Invested Assets (Sch. BA)			(some sub-categories may be at 35.0%)		
Like Bonds - with Ratings	Various	Same as Bonds	26.25%	Various	20.0%
Surp&Cap Notes - Rated	Various	Same as Pref. Stk.	26.25%	Various	20.0%
Like Pref. - with Rating	Various	Same as Pref. Stk.	26.25%	Various	20.0%
Like Mortgages	Various	Same as Mortgages	26.25%	Various	20.0%[8]
Like Real Estate	Various	Same as Foreclosed RE	35.0%	Various	20.0%[8]
Collateral Loans	Various	6.80%	26.25%	Various	5.0%
All Other	Various	30.0%	35.0%	Various	20.0%[8]
Other Cash & Investments					
Cash		0.4%	26.25%		0.3%
Other S-T Investments		0.4%	26.25%		0.3%
Derivative Instruments		Same as Bonds	26.25%		5.0%
Premium Notes		6.80%	26.25%		5.0%
Misc. Investments		6.80%	26.25%		5.0%
Asset concentration factor					Additional 100% charge for 10 largest exposures[9]
Common Factor					
Common Stock Factor		Additional 50% charge for 5 largest exposures			
Other than Common Factor		Additional 100% charge for 10 largest exposures[10]			

Comparison of NAIC Life, P&C and Health RBC Formulas
Detailed grid - Asset Risk Factors

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[1] For P&C Ins. Cos. Only, RBC of subsidiary assigned first to common, then excess, if any, to preferred, then excess, if any, to debt.

[2] The average pre-tax factor of 30.0% is adjusted up or down by the weighted average beta for the portfolio subject to the minimum and maximum values shown. The beta adjustment is the same as the adjustment in the AVR calculation.

[3] Adjusted RBC is RBC of Subsidiary after covariance divided by 1 minus .35 (current tax rate).

[4] Adjusted MCCSR is the MCCSR of Subsidiary divided by 1 minus .35.

[5] Or 2.60% times experience adjustment factor plus 2.0% if greater.

[6] Value net of write-downs.

[7] Calculated on a mortgage by mortgage basis using the value plus write-down times factor less full write-down or the “in-good standing” RBC if greater.

[8] For HMDI & HMO, factor is 10%, for Health Care Delivery Assets (included with Real Estate).

[9] Excluding those with 30% pre-tax charge already. Bonds and stocks issued from same entity are grouped together as one exposure.

[10] Excluding those with 30% pre-tax charge already.

Comparison of NAIC Life, P&C and Health RBC Formulas
Detailed Grid – Comments on Asset Risks

Note: Health asset factors have generally adopted the P&C values for invested assets. The primary difference, as noted, is in Real Estate.

Bonds (unaffiliated):

- The P&C and Health factors were set at the same level as the 2000 L&H factors except for Classes 3, 4 and 5 which were set at ½the L&H factors to take into account the difference in valuation basis – Lower of Amortized Cost or Market Value vs. Amortized Cost. 2001 Life factors are higher pre-tax and lower after-tax to reflect the impact of deferred tax recognition in updated underlying models. The results of the updated models for these Life factors also recognize current AVR treatment.

Preferred Stocks (unaffiliated):

- The P&C and Health factors were set at the bond factor plus 2% for each Class except Class 6 which was held at 30%. This is the same basis used for the L&H factors through 1997.
- New factors were used starting in 1998 for Life preferred stocks based on study of preferred stocks. A further change was made in 2001 to recognize deferred taxes.
- The P&C preferred stock factors were not changed to reflect the 1998 study results. Different risk factors can be justified by different accounting treatment (statutory accounting relies more on market values for P&C and Health than Life), the overall importance of preferred stocks and the size of any potential change.

Common Stocks (unaffiliated):

- The P&C factor of 15% is based on different assumptions than the L&H factor of 30% pre-tax. For P&C, a one-year holding period was assumed, and historic market fluctuation from quarter-end to quarter-end was analyzed. For L&H, a two-year holding period was assumed, and historic fluctuation data included interim losses. The relatively higher significance of common stock holdings to P&C companies played a role in arriving at the 15% factor which is higher than the studies deemed necessary. The L&H after-tax factor is approximately 20%.
- Starting in 2001, the Life RBC after-tax factor is 19.5% and the RBC for most common stocks is further up or down by the weighted average beta for the portfolio. The beta adjustment is the same as the adjustment in the AVR calculations.

Investments in Affiliates:

Bonds:

- The L&H formula applies the same RBC factors to affiliated bonds as to unaffiliated bonds. The P&C formula treats RBC for an affiliated bond as covered by total RBC of the affiliate. If Total RBC of the affiliate is less than the total preferred and common equity of the affiliate, no RBC is ascribed to the debt of the affiliate.

Comparison of NAIC Life, P&C and Health RBC Formulas
Detailed Grid – Comments on Asset Risks

Preferred and Common Stocks:

- RBC requirements for investments in U.S. and Canadian Insurers and for Investment Subsidiaries are essentially the same.
- There is a difference between the L&H and P&C requirements for Other Alien Insurers and Other types of affiliates. The Life formula assumes that the surplus of Other Insurers is the amount necessary - i.e. it applies a 100% RBC factor to the value of these investments (the Other Insurer's capital and surplus). The P&C formula assumes that some portion of the surplus can support the parent's other risks, resulting in a 50% charge. For Other types, the P&C formula applies a 19.5% RBC factor for this common stock. The Life formula applies a 34.5% RBC factor (pre-tax) and 19.5% after-tax.

Mortgage Loans:

- The P&C factor of 5% for all mortgage loans was used primarily because mortgage loans are a relative insignificant holding of these insurers, and the P&C investment schedules did not provide all the detailed groupings available in the L&H investment schedules. The 5% factor was set without significant analytical justification. The L&H factors are based on studies and are subject to an Experience Adjustment relative to the Industry experience which creates the range of factors. The L&H factors are, therefore, continually revised based on evolving company and industry default data.

Real Estate:

- The P&C factor is 10% for all real estate and the factor is applied to the statutory carrying value[1], plus encumbrances. There are separate L&H factors for real estate acquired by foreclosure vs. all other as well as different factors applied to the statutory carrying value and the encumbrances. The Health formula calls this category "Property & Equipment" and includes items such as furniture and medical equipment (e.g. MRI machines). This reflects the importance of these items to the delivery of health care, and the different non-admitted asset rules for these items those for Health Entities versus P&C and L&H companies.

Other Invested Assets (Schedule BA):

- A flat 20% factor was set for P&C companies. A 30% factor was set for L&H companies except for investments with the underlying characteristics of bonds, preferred stocks, mortgages or real estate if established by an independent rater. One exception which is consistent for all three formulas is that Collateral Loans use a 5% factor.

Asset Concentration

[1] Statutory carrying value is generally cost reduced for depreciation and encumbrances.

Comparison of NAIC Life, P&C and Health RBC Formulas
Detailed Grid – Comments on Asset Risks

- For P&C and Health, the calculation is still based on the top 10 issuers (i.s., entities/corporations) that the insurer is exposed to, with the charge for each asset from that issuer doubled (to maximum total charge of 30% for each asset). These increased charges for each asset are assigned to the same location in the covariance formula that the base charge was assigned (e.g., all to H1 for the Health formula, and to either R1 or R2 for the P&C formula depending on whether the asset was fixed income or equity).
- In 2001, the Life formula separates the asset concentration risk calculation into two parts. The one for C-1o is unchanged – applying an extra 100% of RBC (not to exceed a total of 30% pre-tax) to the largest 10 assets (by statement value). A new concentration risk calculation for C1-cs adds 50% of the RBC after an adjustment for the stock's beta value to each of the 5 largest common stock holdings (on a consolidatied basis including insurance and investment subsidiaries). There is a minimum addition (11.25%) of each stock's RBC and maximum (22.5%).

Comparison of NAIC Life, P&C and Health RBC formulas
Detailed Grid - Insurance Risk

			P&C	Health	Life
A.		General			
	1	Pricing/Underwriting Risk			
	Risk:	Future Pricing risk (I.e. business that will be priced in the future)	factor x Written Premium	Not reflected	Not reflected directly. Considered as a part of C-4.
	Risk:	Past pricing, future event risk	To the extent captured by the Unearned Premium reserve (UPR), there is no RBC reflection. The reason is that acquisition costs are incurred up front under P&C statutory accounting, but the UPR reserve does not reflect this. Therefore the conservative accounting for prepaid expenses and the UPR already covers this risk, and any added RBC load would have been redundant. For contracts with delayed booking of written premium, the charge applied to WP does provide a nominal charge for this risk.	("Tiered" factor) times (EP) times (Loss Ratio) times (1 - Managed Care credit) for major Health lines. ["Tiered" factor refers to a factor that varies with successive layers of EP volume, e.g. one factor for first $X million of EP, and a different factor for next $Y million, etc..]	Health: factor x EP. (Details same as Health for Health lines, but tiered factor x EP without further adjusting for DI, LTC, and some supplemental coverage.) Life: factor times amount at risk. Annuity: na The factors used are "tiered", such that one factor applies to the first $X million, a different factor applies to the next $Y million, etc..
	2	Reserving Risk			
	Risk:	Past events - estimation (and process?) risk	factor x Loss Reserve	Not reflected.	factor x (Health) claim reserve

Comparison of NAIC Life, P&C and Health RBC formulas
Detailed Grid - Insurance Risk

		P&C	Health	Life
3	Risk Variations by Line/Product to Reflect product (i.e. line) risk differences:			
	How:	factors vary by line	factors, tiering vary by "line".	factors, tiering vary by "line"
	Line/product definitions:	There are 18 lines. These lines follow the line structure in Schedule P of the P&C blank, except that: (1) the claims made vs. occurrence split is only recognized for Med. Malpractice, (2) and the Reinsurance A and Reinsurance C lines are combined	There are separate factors or factor sets for 9 different "lines" (Medical Coverages, Dental Coverages, Medical Supplemental, Disability Income, LTC, Stop-Loss/Minumum Premium, HI/Specified Disease, AD&D and Other Accident). There is also special recognition for FEHBP and for other types of coverage that do not fit into one of the above lines.	Same as Health for Health lines. All life exposure is combined to determine net amount at risk.
	Line/Product overlap			
4	Risk variations by Licence/Blank Used			
	Accident & Health	All A&H lines lumped in "Other", along with Credit insurance, if A&H premium is under 5% of total premium for all three of the latest years (including the current year). If 5%, or more, the formula brings in the Life formula factors and formulas for this business, although it retains the P&C covariance structure.	These are the lines the formula is designed to cover. Generally the NAIC had tried to keep the Health H-2 factors and the Health factors for C-2 in Life RBC formula the same. Formula change timing and covariance rules can produce some differences.	See Health. For 2001 the Life formula incorporates pre-tax factors and non-zero tax-adjustments for some health lines which are not in the Health formula. New DI factors is used in 2001 as well.
	Group Health Stop Loss	Recorded under the "Other Liability" line, where the reserve charges (in percentage terms) generally run in the mid to upper 20's.	Separate line of business effective in 1999 with factor of 25% of premium.	A portion of Group A&H with unique RBC factor. Instructions provide a definition of coverage for which the premium is to be reported as stop-loss. Same factor as Health.
	Structured settlements (arising from Liability and WC claims)	A tabular discounted reserve is held under the line which generated the initial P&C claim. Hence RBC charges (before covariance) generally run between 10% and the mid 35's after covariance.	NA	Coded as annuities, which receive no ins. risk charge under the Life formula. Annuities do receive an Interest rate risk charge (C3) of 1 to 1.5%. Charges also apply to the underlying assets.
	Excess Workers' Compensation	The charge for the ceding company is roughly 5% after covariance (see reinsurance discussion below). The assumed charge is in the mid 30's, since it would be coded as "Reinsurance B". The charge for retained reserves from excess WC cover of a self-insured is in the mid to upper 20s, since it would be coded as "Other Liability".	N/A	To the extent coded in Group A&H, it is treated like any other Group A&H. Reserves placed in Exhibit 11, including those categorized as IBNR, do not get an RBC charge. Reserves placed in Exhibit 9 get a 5% charge, placed in C2. Any retrocession of this business gets the same treatment as any other ceded amounts (i.e. a 0.5% charge), placed in C1.

Comparison of NAIC Life, P&C and Health RBC formulas
Detailed Grid - Insurance Risk

		P&C	Health	Life
5	Risk Variations by Company			
	RBC Factor based on company-related adjustment to "base" factor	Adjust factors based on company vs. industry experience. All companies with enough history (at stable volume) get 50% credibility.	For certain health lines (Medical coverage, Dental coverage, Medicare Supplement, and other) the health premium is multiplied by the company's loss ratio before the RBC factor is applied.	For certain health lines (Medical coverage, Dental coverage and Medicare Supplement) the health premium is multiplied by the company's loss ratio before the RBC factor is applied.
	Pricing risk for expenses	Premium risk incorporates company expense ratio.	Reflected in Business Risk	Reflected in Business Risk for health
	Risk of significant growth	If gross 3 year average group WP growth is over 10%, factor times latest year WP added to R5, and different factor times total reserve added to R4.	If component of insurance risk shows one year growth greater than associated revenue growth plus 10%, then half of this excess growth is added to business risk charge (H4).	Not reflected
	New Company	Not reflected,other than through use of a high 1st yr growth rate and lack of company experience adjustment.	Not reflected, other than through use of "tiered" factors.	Not reflected, other than through use of "tiered" factors applying higher charges to the amounts (premium, net amount at risk) up to the stated amounts with lower factors for the amounts in excess of the limit.
	Small Company	Not reflected	Reflected through the use of "tiered" factors by line. Companies with low volume in a line end up with a higher average risk factor for the line. In addition, an alternative minimum risk calculation exists based on the net retention on an individual risk basis, for some health issues.	Reflected through the use of "tiered" factors by line. Companies with low volume in a line end up with a higher average risk factor for the line. Alternative minimum risk calculation applies to some health lines.

Comparison of NAIC Life, P&C and Health RBC formulas
Detailed Grid - Insurance Risk

B **Treatment of risk mitigation strategies**

1 **Risk Transfers**

	P&C	Health	Life
Reinsurance For further details, see the Reinsurance receivables/recoverables section of the Credit risk grid.	Factors applied to amounts net of reins. Half the related reinsurance credit risk charge is added to a portion on insurance risk (i.e. reserve risk, or R4) under covariance, with the other half in with other credit risk (R3) under covariance.	Factors applied to amounts net of reinsurance. The related credit risk is in a separate category under covariance (H3).	Factors applied to amounts net of reinsurance. The related credit risk is included in C1o, with other asset risk.
Deductibles	Factors applied to amounts net of deductible.		Factors applied to amounts net of deductible.
Loss-sensitive contracts and other policy experience credits	Percent credit applied to extent WP or loss reserve is from loss sensitive business. Credit is 30% of the charge for primary lines, 15% for reinsurance lines.	same as Life	Partial (50%) credit for premium stabilization reserves.
Dividends	Not reflected as a risk item. In addition, neither the premium base (for R5) nor the expense ratio include the impact of dividends.	Not reflected	Partial (50%) credit for future dividend reserves applied to "adjusted capital." Not otherwise reflected.
Policy Limits	Not reflected, other than to extent reflected in company experience adjustment through historic loss ratio or reserve development impacts.	The net retention on an individual risk basis is used in calculating the alternative minimum insurance risk charges unless retention exceeds the formula cap.	For life products, the charge is based on net amount a of insurance, net of reinsurance, less net reserves. For health products, same as Health.
Other		Managed Care credits reflect transfer of insurance risk to other Health Entities or providers. Credit risk from providers accepting capitation risk is provided for in H3. The non-zero credits range from 10% to 50%.	Same as Health, but with the risk placed in C3. Managed care credits not allowed where the intermediaries are non-regulated affiliates.

Comparison of NAIC Life, P&C and Health RBC formulas
Detailed Grid - Insurance Risk

		P&C	Health	Life
2	Diversification			
	Across Product Lines	Concentration factor gives credit for prem or res diversification across lines. Maximum credit is theoretically 30% for uniform spread across lines. Credit calculated separately for premium (R5) and reserve (R4) risk.	Not reflected	Not reflected
	Multi-company Pooling	For a pool member, company experience adjustment is based on data of the entire multi-company pool due to the use of Schedule P data.		

Comparison of NAIC Life, P&C and Health RBC formulas
Detailed Grid - Insurance Risk

		P&C	Health	Life
3	Covariance			
a	Relating solely to Insurance Risks	Two separate covariance items, R4 and R5. Related credit risk is split 50/50 between R3 and R4 (except for shell or "fronting" company).	One covariance item, H2, with related credit risk in H3.	One covariance item, C2, with related credit risk in C1 (reinsurance) and C3b (capitation).
b	Covariance for the Formula in Total - The impact of any factor is reduced less if that risk dominates. The "normal" or expected dominate risk varies for 3 formulas.	For vast majority of companies, R4 and/or R5 dominate, making other risk components relatively immaterial for RBC. .	In general, the H2 factor dominates the calculation, making other items in the covariance formula relatively immaterial.	For life insurers, the C1 factor dominates the calculation, making other items in the covariance formula relatively immaterial. For Life companies with A&H lines, the C2 factor can dominate the covariance calculation.
c	Interest rate risk	Not reflected - not considered to be significant	Not reflected - not considered to be significant	For Annuities and Single Premium Life Insurance products: factors are developed using asset/liability cash flow models under scenerios designed to test interest rate tail risk. Companies are required to perform this scenerio testing approach only if either a predefined significance test or a stress test indicates they must. Otherwise, they follow the "factor x liability"approach. Factor x Liability approach: an interest rate risk factor is applied to the reserve or liability for product lines sensitive to this risk. Some products not subject to the cashflow testing approach have factors as well. Affected products lines are separated into low, medium and high risk categories, with separate factors for each category. 1/3 credit for companies with unqualified "Section 8" actuarial opinion. (Charge is based on an assumed duration mismatch and interest rate shock. Comany situation reflected only via "Section 8" opinion.) The separate covariance component (C3), is combined with asset risk (c1o) in the covariance formula.
	Interest rate risk--callable assets	Not reflected	Not reflected	For callable assets (including IOS and similar investments) supporting untested products and surplus, the C-3 factor is 50% of the excess, if any, of statement value above current call price (calculated on asset by asset basis).

Comparison of NAIC Life, P&C and Health RBC formulas
Detailed Grid - Insurance Risk

C Basis for NAIC Formula Value

	P&C	Health	Life
Parameterization	Base reserve and premium risk factors are based on discounted worst case scenario for a 10 year history, using arithmetic averages of individual company results. Discounting for worst case scenario uses a 5% interest rate.	The recommended Academy factors were based on a 5% probability of ruin over a 3 to 5 year period for each line. The final factors incorporated NAIC modifications to these recommendations.	The recommended Academy factors were based on a 5% probability of ruin over a 3 to 5 year period for each risk. The overall probability of ruin for a company with a broad spread of risks in assumed to be 1%. The final factors incorporated NAIC modifications to these recommendations.
	Base reserve charges were kept above 10%, so that charge for retaining a reserve was always greater than credit risk charge from ceding a reserve.		
	Underlying concept of "expected policyholder deficit" used in the parameterization discussion, but not clear how implemented in practice.		
Calibration	As insurance risk is the major risk affecting P&C companies, the final calibration of the formula was probably done exclusively through the insurance risk factors, with no changes made to the asset risk factors.	Since the vast majority of risk for MCOs is in the H2 term, calibration would generally be done by adjusting H2 factors or managed care credits.	Since the vast majority of risk for most life companies in in the invested assets, calibration would generally be done by adjusting the asset changes.

The following risks and risk factors have been identified as not reflected in any of the three formulas at this time:
Concentration of Insurance Risk
Liquidity
Geographic Region
New versus renewal business
Distribution Systems
Customer size There is a disclosure if any exposure is over 5% of surplus.
Ability to reduce future dividend scales

Some of these can be aggrravating or mitigating risk factors within the total circumstances of a particular company.

Comparison of NAIC Life, P&C and MCO RBC formulas
Detailed Grid - Credit Risk

A Risk (non-payment of entire booked asset):

	P&C	Health	Life
Reinsurance receivables / recoverables	10% charge, half in R3, half in R4. Excluded from the charge are cedes to U.S. affiliates, mandatory pools, and certain voluntary pools (based on purpose and spread of the pools). Credit given for overdue authorized reinsurance and unauthorized reinsurance penalty amounts.	0.5% charge in H3, excluding cedes to affiliates the company owns 100%.	0.5% charge in C1, excl. cedes to affiliates the company owns 100%, with offsets for funds held and unauth. reins. penalties booked elsewhere in the blank. A negative charge also exists for some assumed reins. balances from affilates.
FIT*	5% charge, in R3 for recoverable, including any deferred tax asset, recorded on the FIT recoverable line of the annual statement	Not reflected	While no specific factor applies to an FIT asset, the 2001 formula incorporates tax adjustments to RBC values to allow use in a sensitivity test with pre-tax values.
Guaranty funds receivable or on deposit	Not reflected.	same as Life	Not reflected. (There is a business risk charge related to guaranty fund exposure, but it does not consider this asset.)
Interest, dividends, real estate income	1% charge, in R3	1% charge, in H3	Not reflected
Health Care Receivables	N/A		N/A
Receivables from affiliates	5% charge, in R3	5% charge, in H3	Not reflected
Amts rcvble relating to uninsured A&H plans	5% charge, in R3	5% charge, in H3	Not reflected
Write-ins	5% charge, in R3	5% charge, in H3	Not reflected

* Effect of Deferred Federal Income Taxes from codification will need to be reflected for 2002 and later.

B Risk (residual risk from payments for transfer to providers or intermediaries):

Capitations	The credit risk for certain managed care credits applies if the Life RBC formula applies to A&H business	2% for unsecured amt to providers, 4% for unsecured amt to intermediaries	same as Health

Comparison of NAIC Life, P&C and MCO RBC formulas
Detailed Grid - Credit Risk

	P&C	Health	Life
C Treatment of risk mitigation strategies			
Risk Transfers			
Funds held / escrows	Uses offset allowed in Life formula if Life formula applies to A&H buisness	same as Life	Credit given under reinsurance. Capitation credit risk offset by line-of-credit or available funds held.
Diversification			
Covariance	In most cases, reinsurance credit risk is split evenly between R3 and R4, while all other credit risk is wholly in R3. After covariance, usually only the R4 piece materially affects the final result. For companies with minimal R4 risk, all credit risk is in R3.	In H3, by itself under the radical, so generally of minor importance	Reinsurance credit risk is in C1, typically the biggest item for life insurers. Capitation credit risk is in C3b, by itself under the radical so generally of minor importance.
D Basis For NAIC Formula Values			
Parameterization	Judgmental selections. Reinsurance charge reflected concern with "recent" reinsurer insolvencies and underestimation of ceded balances.	Same as life formula	Reinsurance credit risk deemed to be comparable to bonds between class 1 and 2, so risk factor is between these two bond classes.
Calibration	As insurance risk is the major risk affecting P&C companies, calibration of the formula would generally done through the insurance risk factors, with no changes made to the credit risk factors.	Since the vast majority of risk for MCOs is in the H2 term, calibration would generally be done by adjusting H2 factors or managed care credits.	Since the vast majority of risk for most Life companies is in the invested assets, calibration would generally be done by adjusting these asset charges, not the reinsurance credit risk charge.

The following identified risks and risk factors are not reflected with specific RBC changes in any of the three formulas at this time:

Premium balances receivable
Funds held by reinsured
Bills receivable
Equities in pools and associations
Liquidity
Diversification or
concentration among creditors

In some of these situations there are statutory rules relating to non-admitted assets.

2/02

Comparison of NAIC Life, P&C and Health RBC formulas
Detailed Grid - Misc.
(business, off-balance sheet, downward trend in financial strength) Risk

		P&C	Health	Life
Risk:	Business risks such as competitive markets, lawsuits (e.g. bad faith or unfair trade practices) effects of legislative/tax/court changes, economic or social changes, mismanagement or fraud, troubled parent or affiliate, non-ins. Liabilities, etc.	Generally considered to be already reflected in the insurance risk charges (R4 and R5), to the extent reflected in industry and/or company loss development histories, loss ratio histories or expense ratios. Note that no reflection is made for risk in estimating non-insurance liabilities.	same as Life	Factor times income ("premium income or annuity considerations" for Life & Annuity, "premium" for A&H). This is meant to reflect exposure to guaranty fund assessments and litigation. Also charge exists related to health administration expenses and separate accounts.
Risk:	Off-balance sheet risks (contingent liabilities, non-controlled assets, guarantees for affiliates, derivatives off-balance sheet exposure)	1% charge for contingent liabilities, guarantees for affiliates, non-controlled assets. No reflection of derivative off-balance sheet exposure for 2001.	same as P&C	1% charge for contingent liabilities, guarantees for affiliates, non-controlled assets. Derivative exposure handled in asset risk.
Risk:	Trend in RBC ratios over time	Not reflected. The life RBC trend test was evaluated for possible inclusion in P&C RBC and it was found not to be a reliable predictor of a company's future RBC position, hence it was not adopted for P&C.	Not reflected, other than through the growth charge. Growth is defined by growth in a component of insurance risk RBC which exceeds the growth in underlying revenue by more than 10%.	Model law contains a trend test whereby if RBC score is trending down, and RBC ratio is between 2.5 and 2.0, the company may be deemed to be at the Company Action Level.

Comparison of NAIC Life, P&C and Health RBC formulas
Detailed Grid - Misc.
(business, off-balance sheet, downward trend in financial strength) Risk

	P&C	Health	Life
Reflect product (i.e. line) risk differences:			
How:	Where Health premiums are greater than 5% or more of premiums for any of the last three years, same as Health.	Health Administrative Expense risk charge varies by type of Administrative Expense arrangement (e.g. ASO vs. non-ASO)	For (guaranty fund) business risk, a separate factor is applied for Life & Annuity versus A&H business. Health Administrative Expense risk follows Health formula.
Treatment of risk aggravation items			
Small company	Not reflected	Tiered charge for Health Administrative Expense risk for non-ASO contracts.	Same as Health
Covariance	Off-balance sheet risk is in R0, outside covariance. Business risk items imbedded in insurance risk are in the items that generally are the most significant going into the covariance formula, hence they remain significant after covariance.	All in H4, a separate item under the radical so generally of minor importance	Business risk associated with Health Admin Expenses is inside the covariance radical (C4b). The rest of business risk in outside the covariance radical (C4a). Off-balance sheet risk is in C0. The trend test is part of the model law, not the RBC formula.

Comparison of NAIC Life, P&C and Health RBC formulas
Detailed Grid - Misc.
(business, off-balance sheet, downward trend in financial strength) Risk

	P&C	**Health**	**Life**
Parameterization	Off-Balance sheet charge same as Life.	Off-Balance sheet charge same as Life.	Off-Balance sheet charge of 1% was judgementally selected.
Calibration	As insurance risk is the major risk affecting P&C companies, the final calibration of the formula was probably done exclusively through the insurance risk factors, with no changes made to the other risk factors.	Since the vast majority of risk for Health's is in the H2 term, calibration would generally be done by adjusting H2 factors or managed care credits.	Since the vast majority of risk for most Life companies is in the invested assets, calibration would generally be done by adjusting the asset changes.

The following identified risks and risk factors are not reflected in any of the three formulas at this time:

Reinsurance company variations as a business risk to ceding company
New Company
Concentration

To the extent they reflect business risks different from the risk a similar exposure would provide to a company not subject to the particular risk noted.