



AMERICAN ACADEMY of ACTUARIES

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February 22, 2021

Steve Drutz
Chair, Health Risk-Based Capital (E) Working Group
National Association of Insurance Commissioners (NAIC)

Re: Request for Analysis to Incorporate Investment Income into the Underwriting Risk Component of the Health Risk-Based Capital Formula

Dear Mr. Drutz:

On behalf of the American Academy of Actuaries (Academy)¹ Health Solvency Subcommittee, I am pleased to provide this response letter to the Health Risk-Based Capital (HRBC) Working Group. This letter is in response to the request from the HRBC Working Group to provide additional analysis regarding the potential investment income adjustment factor for Health H2 Experience Fluctuation Risk.

Incorporation of Investment Income into H2 Risk Factors

As per the HRBC Working Group's request to further analyze the impact of incorporating investment income into Columns 1-4 from page XR012 – Underwriting Experience Fluctuation Risk, we have analyzed expense ratios and claims payment patterns for each type of health coverage.

The table below summarizes the assumed expense ratio for each product, the current base RBC factors, and the implied Risk Factors (i.e., loss ratios at the desired safety margins). The expense ratio assumptions were generated based on a high-level analysis of General Administrative expenses from Page 7 of the annual statement. Additionally, since stand-alone Medicare Part D coverage has effectively no claims lag, the investment income adjustment would be negligible and the RBC factors would not be impacted.

¹ The American Academy of Actuaries is a 19,500-member professional association whose mission is to serve the public and the U.S. actuarial profession. For more than 50 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.

Expense Ratio Assumption and Current RBC Factor Summary

| | Comprehensive Medical | Medicare Supplement | Dental & Vision |
|---|-----------------------|---------------------|-----------------|
| Typical Expense Ratio | 9.0% | 14.0% | 13.0% |
| Tiered RBC Factors | | | |
| \$0 - \$3 Million | 0.150 | 0.105 | 0.120 |
| \$3 - \$25 Million | 0.150 | 0.067 | 0.076 |
| Over \$25 Million | 0.090 | 0.067 | 0.076 |
| Implied Risk Factor (loss ratio) | | | |
| \$0 - \$3 Million | 106% | 97% | 99% |
| \$3 - \$25 Million | 106% | 93% | 95% |
| Over \$25 Million | 100% | 93% | 95% |

Also, in order to calculate the investment income impact, the following cumulative claims payment patterns were utilized. Since Dental and Vision share a column within the RBC formula, we used a blended completion factor assuming 75% weighting for dental and 25% weighting for vision. The Comprehensive Medical (CM) completion pattern is consistent with our prior analyses.

Claim Payment Pattern Assumption

| Months of Run Out | CM | Medicare Supplement | Dental | Vision | D&V Blended |
|-------------------|------|---------------------|--------|--------|-------------|
| 0 | 50% | 10% | 50% | 70% | 55% |
| 1 | 70% | 75% | 85% | 92% | 87% |
| 2 | 85% | 95% | 90% | 97% | 92% |
| 3 | 95% | 96% | 93% | 99% | 95% |
| 4 | 97% | 97% | 95% | 100% | 96% |
| 5 | 99% | 98% | 97% | 100% | 98% |
| 6 | 99% | 99% | 99% | 100% | 99% |
| 7 | 100% | 100% | 100% | 100% | 100% |
| 8 | 100% | 100% | 100% | 100% | 100% |

Utilizing the same approach described in our previous letters² to the HRBC Working Group on this topic, the resulting Tiered RBC factors were calculated using a range of investment return assumptions.

² https://www.actuary.org/sites/default/files/2021-01/HEALTHSOLVENCY_Investment_Income_H2_Considerations_to_NAIC_Follow_Up_Letter.pdf;
https://www.actuary.org/sites/default/files/2020-12/HEALTHSOLVENCY_Investment_Income_H2_Considerations_Letter_to_NAIC.pdf;
<https://www.actuary.org/sites/default/files/2020-03/Bond%20Factors%20HRBC%20Horizon%20Results.pdf>

Investment Income Adjusted Tiered RBC Factors

| Assumed Investment Return | CM | Medicare Supplement | Dental/ Vision |
|---|-----------|----------------------------|-----------------------|
| High Tier (i.e., less than \$3M or less than \$25M) | | | |
| 0.0% | 15.0% | 10.5% | 12.0% |
| 0.1% | 15.0% | 10.5% | 12.0% |
| 0.5% | 14.9% | 10.4% | 11.9% |
| 1.0% | 14.8% | 10.4% | 11.9% |
| 1.5% | 14.7% | 10.3% | 11.8% |
| 2.0% | 14.7% | 10.2% | 11.8% |
| 3.0% | 14.6% | 10.1% | 11.7% |
| Low Tier | | | |
| 0.0% | 9.00% | 6.70% | 7.60% |
| 0.1% | 8.99% | 6.69% | 7.59% |
| 0.5% | 8.93% | 6.63% | 7.55% |
| 1.0% | 8.87% | 6.56% | 7.50% |
| 1.5% | 8.81% | 6.50% | 7.45% |
| 2.0% | 8.74% | 6.43% | 7.40% |
| 3.0% | 8.61% | 6.30% | 7.31% |

We note that the CM RBC factor changed from 8.60% to 8.61% due to a change in the rounding detail utilized within the calculation. Otherwise, the CM column is unchanged.

If you have any questions or would like to discuss further, please contact Matthew Williams, the Academy’s senior health policy analyst, at williams@actuary.org.

Sincerely,
 Derek Skoog, MAAA, FSA
 Chairperson
 Health Solvency Subcommittee
 American Academy of Actuaries

Cc: Crystal Brown: Senior Insurance Reporting Analyst