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# The Examiner®

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The questions are on the following page. Good luck!

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## CRE Reading Program Questions

*All quizzes MUST be taken online.*

*Questions will be **available online July 11, 2022.***

## An Overview of Schedule P

### Multiple Choice and True or False Questions — Submit Answers Online

1. How many parts are there in Schedule P?
   a. 5
   b. 7
   c. 10
   d. 14

2. How many questions make up Schedule P interrogatories?
   a. 3
   b. 5
   c. 7
   d. 11

3. Part 2 contains management's best estimate of net ultimate losses and DCC reported at each year end, as well as one-year and two-year development on ultimate losses and DCC.
   a. True
   b. False

4. Part 4 shows three measures of claim counts (closed, open and reported).
   a. True
   b. False

5. Schedule P claims data should be assigned as:
   a. Always assigned to report year.
   b. Always assigned to accident year.
   c. Policies issued on claims basis should be assigned by accident years and policies issued on occurrence basis in additional to tail policies should be assigned by accident years.
   d. Policies issued on claims basis should be assigned by report years and policies issued on occurrence basis in additional to tail policies should be assigned by accident years.

## Parametric Risk Transfer Finds Its Home in Vermont - Does the New Captive Bill serve as a Blueprint for the Whole Industry?

### Multiple Choice and True or False Questions — Submit Answers Online

6. Current considerations by companies for risk(s) include which of the following:
   a. Traditional
   b. Cyber
   c. Intangible Assets
   d. Pandemics
   e. All of the above
   f. None of the above
   g. A and C

7. Ratio of premiums paid to GDP for non-life insurance globally has been around 5% for the last decade.
   a. True
   b. False

8. Parametric risk is a new approach in the insurance/reinsurance industry.
   a. True
   b. False

9. Parametric model is a concept used to describe a model in which all information is represented within parameters.
   a. True
   b. False

10. Vermont captive insurers may not accept of transfer risk-through the use of parametric contracts.
    a. True
    b. False

## Market Briefing - 2Q 2022 - Industry Assets

### Multiple Choice and True or False Questions — Submit Answers Online

11. What was the rate of inflation in March 2022?
    a. 8.1
    b. 8.5
    c. 8.3
    d. 8.0

12. Bond maturities are an indicator of possible interest rate risk?
    a. True
    b. False

13. Which industry had a significant change in their bond maturity profile?
    a. Life
    b. Health
    c. Property & Casualty
    d. All of the above
    e. None of the above

14. The principal recognized risk for Securities Lending is the potential for a duration mismatch between the Reinvested Cash Collateral and the tenor of the Securities Lending agreements?
    a. True
    b. False

15. There are concerns for a possible depression in the next year or two?
    a. True
    b. False

## PwC NAIC Meeting Newsletter Spring 2022

### Multiple Choice and True or False Questions — Submit Answers Online

16. The Group Capital Calculation Working Group did adopt the industry proposal to allow an increase in the debt allowance by 10% in certain circumstances.
    a. True
    b. False

17. The Investment Risk-Based Capital provided direction on the following projects:
    a. Consider a second phase of the bond factors for structured securities and other asset-backed securities, including collateralized loan obligations.
    b. Consider specific RBC charges for residual tranches that will now be reported on Schedule BA.
    c. All of the above
    d. None of the above

18 The Catastrophic Risk Subgroup adopted its final "information only" risk charge for wildfire peril for 2022 RBC filings.
    a. True
    b. False

19. The Blanks Working Group took which of the following actions?
    a. Adopted a proposal to add a footnote to Exhibit 7 in the Life annual statement to capture the amount of Federal Home Loan Bank Funding Agreements by classification type.
    b. Did not adopt a proposal to add instructions to the investment Schedules General instructions to exclude residual tranches or interests from being reported as bonds on Schedule D, Part 1.
    c. All of the above
    d. None of the above

20. The Climate Resiliency Task Force received a report from its Climate Risk Disclosure Workstream on the status of the NAIC's Climate Risk Disclosure Survey during the Spring meeting.
    a. True
    b. False

# An Overview of Schedule P

*By Solomon Frazier, FSA, FCAS*
*Sonya Bergquist*
*and Mark Larson*
*Taylor-Walker Consulting, LLC*

**Introduction**

Schedule P is the dedicated actuarial schedule within the Property and Casualty Annual Statement (P&C AS). It provides unique insights into the results of a given company's underwriting performance and reserving history. The preparation of Schedule P is dictated by NAIC Annual Statement Instructions. When filled out correctly, Schedule P can provide an overview of a company's reserving and pricing experience over the most recent ten years. This is especially important in the risk-focused examination process, as Schedule P can provide clues about where the actuarial team's attention should be focused in the early phases of the exam. Schedule P may also be used during the detail testing conducted in Phase 5 of a risk-focused examination. In this paper, we walk through the information contained in Schedule P, how some of the entries are to be completed, some useful insights that can be gleaned from the presented information, and some common Schedule P reporting errors. The Schedule P sections and Interrogatories are generally discussed separately below. Exhibits contained herein should be considered to be from different fictitious Schedule P's.

**The Wonderful World of Schedule P**

Schedule P is broken up into parts 1 through 7, as well as individual Schedule P sub-sections dedicated to individual annual statement lines of business, each of which contain the same seven parts. The P&C AS also includes Schedule P Interrogatories that provide additional, supplementary information. Generally, Schedule P parts 1 through 5 display information for the most recent ten years plus more limited information for prior years. However, some extremely short-tailed lines of business only show two years of history plus more limited information for prior years. Auto Physical Damage, for example, would show two years of historical data, while Other Liability would show ten. The years in Schedule P are defined as the year a claim is incurred or the year in which premiums were earned. Incurred year will differ depending on whether the policy written was occurrence based or claims-made based. Under occurrence coverage, including tail policies issued, claims should be grouped by the year the claim occurred, while claims should be grouped by the report year for claims-made coverage. Parts 1 through 4 contain a summary exhibit as well as an exhibit for each line of business written by the company. The additional breakdown into individual lines of business offers a more granular look at a company's pricing and reserving experience, which can aid in pinpointing how individual lines contribute to the Company's overall performance. This can be especially helpful in cases of extreme development (whether adverse or favorable), as the detailed breakdown allows you to see if there are any lines of business acting as the primary drivers of the observed changes.

**Schedule P Part 1**

Schedule P Part 1 contains a great deal of information regarding an insurer's premium and loss history, the most significant of which are earned premiums, historical payments, ultimate incurred amounts, unpaid amounts (reserves), claim counts, loss and expense percentages, and paid and anticipated salvage and subrogation recoveries. Part 1 also contains information regarding intercompany pooling percentages and non-tabular discount, if applicable. This information is displayed in 36 columns with ten defined years, a prior years row, and a totals row, with columns 1 through 12 displayed on the next page.

SCHEDULE P - ANALYSIS OF LOSSES AND LOSS EXPENSES
SCHEDULE P - PART 1 - SUMMARY
($000 Omitted)

| Years in Which Premiums Were Earned and Losses Were Incurred | Premiums Earned | | | Loss and Loss Expense Payments | | | | | | | | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Loss Payments | | Defense and Cost Containment | | Adjusting and Other | | 10 | 11 | Number of Claims Reported Direct and Assumed |
| | 1 Direct and Assumed | 2 Ceded | 3 Net (Columns 1 - 2) | 4 Direct and Assumed | 5 Ceded | 6 Direct and Assumed | 7 Ceded | 8 Direct and Assumed | 9 Ceded | Salvage and Subrogation Received | Total Net Paid (Columns 4 - 5 + 6 - 7 + 8 - 9) | |
| 1. Prior | X X X | X X X | X X X | 490 | 82 | 45 | 6 | 50 | 8 | 8 | 489 | X X X |
| 2. 2011 | 22,792 | 4,740 | 18,052 | 14,105 | 2,034 | 801 | 121 | 1,473 | 237 | 483 | 13,387 | X X X |
| 3. 2012 | 24,701 | 4,642 | 20,059 | 17,397 | 2,347 | 803 | 110 | 1,955 | 249 | 538 | 17,449 | X X X |
| 4. 2013 | 25,196 | 5,756 | 19,439 | 14,130 | 3,443 | 748 | 168 | 1,622 | 207 | 519 | 12,492 | X X X |
| 5. 2014 | 26,250 | 3,293 | 22,957 | 11,270 | 1,623 | 665 | 69 | 1,164 | 164 | 405 | 11,244 | X X X |
| 6. 2015 | 26,775 | 4,885 | 21,891 | 14,403 | 2,588 | 750 | 130 | 1,450 | 246 | 568 | 13,640 | X X X |
| 7. 2016 | 27,783 | 5,539 | 22,244 | 14,508 | 2,558 | 760 | 142 | 1,574 | 252 | 734 | 13,889 | X X X |
| 8. 2017 | 28,339 | 3,274 | 25,065 | 15,690 | 1,501 | 775 | 73 | 1,533 | 183 | 564 | 16,262 | X X X |
| 9. 2018 | 31,535 | 7,330 | 24,204 | 14,097 | 3,436 | 750 | 133 | 1,463 | 341 | 561 | 12,401 | X X X |
| 10. 2019 | 34,209 | 6,247 | 28,962 | 11,863 | 2,010 | 601 | 99 | 1,313 | 204 | 590 | 11,464 | X X X |
| 11. 2020 | 36,359 | 6,977 | 29,383 | 9,798 | 1,643 | 447 | 73 | 1,008 | 165 | 410 | 9,372 | X X X |
| 12. Totals | X X X | X X X | X X X | 137,751 | 23,864 | 7,146 | 1,124 | 14,605 | 2,325 | 5,380 | 132,089 | X X X |

Both historical payments and current unpaid amounts are displayed on direct & assumed and ceded bases and are separated into three categories: loss, defense and cost containment expenses (DCC), and adjusting and other expenses (AO). Unpaid loss and DCC amounts are further divided into case reserves and bulk & incurred not reported (IBNR) reserves. The categorization of loss is straightforward. These are the actual losses that result from the incident triggering the insurance claim, such as judgments resulting from lawsuits, or repair and replacement costs for insured property. For instance, in the case of a workers' compensation claim, this could be the indemnity amount paid to a claimant, medical expenses, or a combination of the two. DCC and AO are both categories of expenses that relate to the processing of losses. DCC expenses typically have a more direct tie to individual claims. These expenses could include legal fees related to defending a claim (the "defense" in "defense and cost containment"), as well as the cost of specific measures undertaken by the insurer to manage the claim. AO expenses may be allocable to individual claims, but they may also be related to expenses incurred by an insurer to handle its claims more broadly. These expenses may include payments to third-party administrators and other general management fees.

Ultimate incurred loss and loss expense amounts are separated into direct & assumed, ceded, and net amounts. These amounts represent management's best estimate of the ultimate losses and loss adjustment expenses (LAE) associated with its earned premiums through the current year-end. The loss and loss expense percentages implied by management's best estimate of ultimate losses and LAE are shown on direct & assumed, ceded, and net bases in columns 29 through 31, respectively, as shown on the next page.

| | Loss and Loss Expense Percentage (Incurred/Premiums Earned) | | |
|---|---|---|---|
| | 29<br>Direct and Assumed | 30<br>Ceded | 31<br>Net |
| 1............. | XXX | XXX | XXX |
| 2............. | 68.4 | 61.7 | 70.1 |
| 3............. | 82.4 | 59.9 | 87.6 |
| 4............. | 70.1 | 75.1 | 68.6 |
| 5............. | 55.7 | 63.0 | 54.7 |
| 6............. | 71.9 | 71.4 | 72.0 |
| 7............. | 72.8 | 64.1 | 75.0 |
| 8............. | 79.6 | 65.3 | 81.5 |
| 9............. | 65.9 | 69.2 | 64.9 |
| 10........... | 57.7 | 64.3 | 56.5 |
| 11........... | 75.9 | 66.6 | 78.1 |
| 12........... | XXX | XXX | XXX |

As seen, columns 29 through 31 offer a glimpse into the adequacy of the company's pricing. Loss and expense percentages that exceed one hundred percent indicate possible pricing deficiencies and the potential need for a premium deficiency reserve. Loss ratios that are exceptionally low may indicate that the company is charging premiums that are excessive in relation to the loss potential associated with its insurance coverage. However, these percentages are sensitive to the company's general approach to booking reserves. A company that tends to reserve conservatively will see its loss and expense percentages decrease between annual statements. Likewise, a company that tends to reserve aggressively will see its loss and expense percentages increase between annual statements.

The summarized unpaid losses and unpaid loss expenses that are displayed in columns 35 and 36 are stated on a net of reinsurance basis and should tie to lines 1 and 3 of the Annual Statement's Liabilities page, respectively.

Recorded paid and unpaid amounts exist in columns 4 to 9 and 13 to 22, respectively. Or alternatively, the unpaid amounts in columns 13 through 22, in total, are the difference between the ultimate incurred losses and expenses shown in columns 26 through 28, less the payments-to-date shown in columns 4 through 9.

As detailed below, columns 32 and 33 display any non-tabular discounting used to arrive at the ultimate net reserve amounts recorded in columns 35 and 36. Most companies are not permitted to use non-tabular discounting under Statutory Accounting Principles, but if they are, any discounts for which the unpaid amounts are reduced, would be shown here. Column 34 discloses any intercompany pooling percentages for the company, if applicable. If a company participates in an intercompany pool, then the amounts in Schedule P represent the share for the company in question of the overall combined pool experience.

($000 Omitted)

| | Nontabular Discount | | 34 | Net Balance Sheet Reserves After Discount | |
|---|---|---|---|---|---|
| | 32<br>Loss | 33<br>Loss Expense | Inter - Company Pooling Participation Percentage | 35<br>Losses Unpaid | 36<br>Loss Expenses Unpaid |
| 1. .......... | 48 | 10 | X X X | 12 | 10 |
| 2. .......... | 175 | 26 | - | 121 | 74 |
| 3. .......... | 209 | 19 | - | 189 | 153 |
| 4. .......... | 191 | 21 | - | 767 | 174 |
| 5. .......... | 155 | 22 | - | 752 | 190 |
| 6. .......... | 162 | 23 | - | 1,300 | 357 |
| 7. .......... | 193 | 21 | - | 1,525 | 411 |
| 8. .......... | 192 | 21 | - | 2,227 | 526 |
| 9. .......... | 189 | 22 | - | 3,839 | 715 |
| 10. .......... | 145 | 27 | - | 6,945 | 1,201 |
| 11. .......... | 166 | 21 | - | 8,234 | 2,262 |
| 12. .......... | 1,825 | 232 | X X X | 25,912 | 6,072 |

Paid and unpaid amounts in Schedule P should be recorded net of salvage and subrogation recoveries. Salvage and subrogation amounts recorded in columns 10 and 23 represent the amount of the reduction in paid and unpaid amounts respectively for these recoveries.

In addition to reviewing the various items contained in Schedule P in isolation, reviewing these items in combination can yield useful insights that can be used to inform the risk-focused examination process. For example, a Company that shows a large percentage of its earned premiums being ceded in column 2 would expect to see at least some ceded payments, as well as ceded reserves. If this is not the case, there may be a question of whether or not the Company's reinsurance agreements present a risk-transfer issue, or at the very least, that the Company has not historically received benefit from the reinsurance commensurate with the premiums ceded.

**Schedule P Part 2**

Schedule P Part 2 shows the development of net-of-reinsurance incurred losses and DCC expenses over time. More specifically, Part 2 contains management's best estimate of net ultimate losses and DCC reported at each year end, as well as one-year and two-year development on ultimate losses and DCC. It is important to note that this schedule may not align with the estimates determined by the opining actuary. The only circumstance in which they will align is if management's best estimate is equal to the net ultimate losses and DCC estimated by the actuary for all years, which does happen on occasion.

Adjusting and other expenses are not included in this exhibit. As a result, the amounts shown in Part 2 will not reconcile to the net ultimate loss and LAE amounts reported in Part 1. However, if completed correctly, the Part 2 amounts for the current year should reconcile to the net ultimate losses and DCC amounts reported in Part 1 (which have to be computed by summing multiple components as they are not directly shown). These entries are comprised of the sum of paid amounts, case reserves, and bulk & IBNR reserves.

Part 2 is the primary source to evaluate how incurred losses have developed historically. Negative numbers are generally a good sign, indicating that reserves were more than sufficient as of a given date. That said, excessive redundancies may also call into question the reasonableness of the carried reserves. Alternatively, positive numbers are generally a bad sign, indicating that reserves were deficient as of a given date and presenting a possible solvency concern. If this consistently occurs, reserving assumptions and methods should be closely scrutinized since they have been consistently producing deficient reserve estimates. Under ideal conditions, the amounts reported in Part 2 would not change from one valuation to the next. However, since many of the recorded amounts are estimates, they are almost certain to change over time as seen below.

SCHEDULE P - PART 2 - SUMMARY

| Years in Which Losses Were Incurred | INCURRED NET LOSSES AND DEFENSE AND COST CONTAINMENT EXPENSES REPORTED AT YEAR END ($000 OMITTED) | | | | | | | | | | DEVELOPMENT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | One Year | Two Year |
| 1. Prior | 221,466 | 217,045 | 212,175 | 206,261 | 206,848 | 206,143 | 204,896 | 203,450 | 199,516 | 195,888 | -3,628 | -7,562 |
| 2. 2011 | 168,354 | 169,755 | 174,749 | 180,737 | 189,499 | 190,467 | 193,296 | 199,206 | 200,973 | 205,515 | 4,541 | 6,309 |
| 3. 2012 | X X X | 159,165 | 166,447 | 173,860 | 181,286 | 186,735 | 187,520 | 193,023 | 194,875 | 198,300 | 3,425 | 5,277 |
| 4. 2013 | X X X | X X X | 155,450 | 163,981 | 171,915 | 174,894 | 176,076 | 187,559 | 196,799 | 194,755 | -2,044 | 7,196 |
| 5. 2014 | X X X | X X X | X X X | 165,885 | 175,520 | 180,746 | 187,442 | 197,521 | 202,020 | 193,022 | -8,998 | -4,499 |
| 6. 2015 | X X X | X X X | X X X | X X X | 168,215 | 170,336 | 182,495 | 185,025 | 193,582 | 197,404 | 3,822 | 12,379 |
| 7. 2016 | X X X | X X X | X X X | X X X | X X X | 180,108 | 186,204 | 193,926 | 202,434 | 205,113 | 2,679 | 11,187 |
| 8. 2017 | X X X | X X X | X X X | X X X | X X X | X X X | 199,026 | 210,163 | 210,780 | 203,225 | -7,555 | -6,938 |
| 9. 2018 | X X X | X X X | X X X | X X X | X X X | X X X | X X X | 207,922 | 221,393 | 226,214 | 4,820 | 18,292 |
| 10. 2019 | X X X | X X X | X X X | X X X | X X X | X X X | X X X | X X X | 213,414 | 217,309 | 3,895 | X X X |
| 11. 2020 | X X X | X X X | X X X | X X X | X X X | X X X | X X X | X X X | X X X | 216,538 | X X X | X X X |
| | | | | | | | | | | 12. Totals | 958 | 41,641 |

As shown above, Part 2 contains two columns on the right under "Development". These columns show how reserves have developed in the prior years. The One Year column indicating how the prior year-end reserves developed, and the Two Year column indicating how the 2nd prior year-end reserves developed. Having this summary makes it convenient for the actuary providing the Statement of Actuarial Opinion (SAO) to calculate Insurance Regulatory Information System (IRIS) tests 11 and 12. These are key metrics that must be addressed in the SAO, along with IRIS test 13. The existence of the columns is helpful to anyone performing a high-level review of the actuary's work.

**Schedule P Part 3**

Part 3 shows cumulative net paid losses and DCC expenses by year at each year-end valuation for the past ten (or two) years as well as two columns for closed claim counts for each year, one for claims closed with a loss payment and one for claims closed without a loss payment. We note that claim counts are only provided for lines where Part 5 is also populated and claim counts are also not shown in the Summary Part 3 table.

"Historical data for individual accident years – that is, all figures except those in the first row (prior years) and the right-most column (the current valuation) – are unchanged from those in the previous year's Part 3 exhibit."[2, Page 35] The paid loss development technique can be employed to project unpaid claims using just Part 3. One can also observe changes in claim payment activity by comparing the payments made over time as seen below.

**SCHEDULE P - PART 3 - SUMMARY**

| Years in Which Losses Were Incurred | CUMULATIVE PAID NET LOSSES AND DEFENSE AND COST CONTAINMENT EXPENSES REPORTED AT YEAR END ($000 OMITTED) | | | | | | | | | | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1<br>2011 | 2<br>2012 | 3<br>2013 | 4<br>2014 | 5<br>2015 | 6<br>2016 | 7<br>2017 | 8<br>2018 | 9<br>2019 | 10<br>2020 | Number of Claims Closed With Loss Payment | Number of Claims Closed Without Loss Payment |
| 1. Prior ........ | 000 | 45,308 | 64,643 | 99,338 | 112,999 | 121,899 | 136,154 | 145,123 | 150,652 | 151,820 | XXX | XXX |
| 2. 2011 ........ | 80,362 | 87,466 | 96,978 | 103,843 | 104,123 | 122,549 | 124,683 | 134,506 | 143,731 | 144,895 | XXX | XXX |
| 3. 2012 ........ | XXX | 74,681 | 92,719 | 102,415 | 123,119 | 128,108 | 130,390 | 144,171 | 152,285 | 159,076 | XXX | XXX |
| 4. 2013 ........ | XXX | XXX | 70,715 | 88,108 | 104,527 | 117,033 | 131,688 | 143,918 | 150,244 | 158,925 | XXX | XXX |
| 5. 2014 ........ | XXX | XXX | XXX | 77,144 | 82,553 | 91,449 | 103,992 | 105,315 | 106,572 | 113,052 | XXX | XXX |
| 6. 2015 ........ | XXX | XXX | XXX | XXX | 79,507 | 95,495 | 101,848 | 114,531 | 122,497 | 124,090 | XXX | XXX |
| 7. 2016 ........ | XXX | XXX | XXX | XXX | XXX | 86,592 | 93,863 | 102,167 | 112,627 | 123,594 | XXX | XXX |
| 8. 2017 ........ | XXX | XXX | XXX | XXX | XXX | XXX | 94,640 | 102,187 | 103,722 | 113,962 | XXX | XXX |
| 9. 2018 ........ | XXX | XXX | XXX | XXX | XXX | XXX | XXX | 96,745 | 107,227 | 115,516 | XXX | XXX |
| 10. 2019 ...... | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | 100,628 | 106,422 | XXX | XXX |
| 11. 2020 ...... | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | 97,363 | XXX | XXX |

The calculation of the prior years row is intricate and beyond the scope of this article. Computing the prior years row was often one of the questions on the published Casualty Actuarial Society's Exam 6, "Regulation and Financial Reporting", an exam which your local friendly actuary will have interesting memories of. Published exams are available for the exams administered prior to 2020.

**Schedule P Part 4**

Part 4 shows bulk and IBNR reserves on net losses and DCC expenses reported at year end. In other words, the reserves shown are all net loss and DCC reserves excluding the case reserves. As before, these reserves are based on management's best estimate and may not align with those estimated by the opining actuary.

The triangle layout is similar to that of Parts 2 and 3. As it is the measure of bulk and IBNR reserves, it is generally expected to decrease as a given year matures and more claims close.

**SCHEDULE P - PART 4 - SUMMARY**

| Years in Which Losses Were Incurred | BULK AND IBNR RESERVES ON NET LOSSES AND DEFENSE AND COST CONTAINMENT EXPENSES REPORTED AT YEAR END ($000 OMITTED) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1<br>2011 | 2<br>2012 | 3<br>2013 | 4<br>2014 | 5<br>2015 | 6<br>2016 | 7<br>2017 | 8<br>2018 | 9<br>2019 | 10<br>2020 |
| 1. Prior ........ | 111,301 | 89,660 | 83,102 | 57,132 | 46,212 | 39,296 | 36,393 | 30,206 | 28,571 | 24,399 |
| 2. 2011 ........ | 49,830 | 35,654 | 15,382 | 9,523 | 9,289 | 5,940 | 4,955 | 4,432 | 3,271 | 389 |
| 3. 2012 ........ | XXX | 51,450 | 17,455 | 13,823 | 9,315 | 6,517 | 6,108 | 4,539 | 4,291 | 1,601 |
| 4. 2013 ........ | XXX | XXX | 48,426 | 23,320 | 19,550 | 15,010 | 11,499 | 5,936 | 4,346 | 3,539 |
| 5. 2014 ........ | XXX | XXX | XXX | 49,898 | 31,982 | 24,160 | 17,571 | 9,070 | 6,745 | 3,637 |
| 6. 2015 ........ | XXX | XXX | XXX | XXX | 51,318 | 26,557 | 21,394 | 12,087 | 10,269 | 5,523 |
| 7. 2016 ........ | XXX | XXX | XXX | XXX | XXX | 54,448 | 40,529 | 24,957 | 15,071 | 2,733 |
| 8. 2017 ........ | XXX | XXX | XXX | XXX | XXX | XXX | 59,357 | 25,153 | 23,751 | 13,065 |
| 9. 2018 ........ | XXX | XXX | XXX | XXX | XXX | XXX | XXX | 65,011 | 28,845 | 10,545 |
| 10. 2019 ...... | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | 66,687 | 7,353 |
| 11. 2020 ...... | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | 75,600 |

Case reserves and reported losses and DCC (paid plus case reserves) can be derived using Parts 2 through 4. Reported development triangles can be formed by subtracting Part 4 from Part 2. A study of how case reserves develop can be done by subtracting Parts 3 and 4 from Part 2.

An important distinction between Parts 2 through 4 and Part 1 is succinctly explained as follows: "Parts 2 through 4 of Schedule P are gross of all discounting. Therefore, the reserve amounts shown in Parts 2 through 4 will not reconcile to those provided in Part 1 for companies that discount nontabular reserves. The amount of discount is reported in the Notes to Financial Statements, which enables reconciliation between Part 1 and Parts 2 through 4."[1, Page 170]

Parts 5 through 7 are visually similar to parts 2 through 4.

**Schedule P Part 5**

Part 5 shows three measures of claim counts (closed, open, and reported). There is not a summary table for Part 5. The latest valuation for this information is also displayed in the Part 1 and 3 subparts. Part 5 should show a reasonable progression across each row from one year to the next and should not show development in reported claim counts for claims-made coverages. Claims are counted inconsistently between companies. "One known inconsistency is that some companies record claims on a per-claim basis and others on a per-claimant basis."[1, Page 185] Part 5, therefore, is more valuable as an internal analysis tool and less valuable as an exhibit to compare one company to another.

Among the revealing statistics that can be derived from Part 5 is claims closure rates. That is, closed claims divided by reported or ultimate claim counts. The user can compute this rate on all closed claims or only on those closed with payment. After doing this, changes in the rate of settlement can be identified, which can also provide insight into the behavior of Parts 2, 3, and 4.

**Schedule P Part 6**

"Part 6 provides cumulative premiums earned as of December 31 for each of the last 10 calendar years. The first year of report includes premiums earned in the calendar year. Moving left to right, subsequent years show premiums earned after positive or negative adjustments from premium audits, retrospectively rated policies, lags in reporting or accounting for premiums, among others."[1, Page 194] Section 1 of Part 6 shows direct plus assumed business while Section 2 shows ceded business. Companies that have material reinsurance transactions should take care to compare Part 6 on a net basis to Parts 2, 3, and 4, as these parts are shown as net.

The aim of Part 6 is to convert accident/report-year earned premiums to calendar-year premiums displayed in Part 1. It shows premium development on an accident/report-year basis due mostly to premium audits. Part 6 may be used by the IRS as a check on when companies book ultimate premiums[2, Page 72].

**Schedule P Part 7**

Part 7 displays loss and premium data on loss sensitive business and is optional. Part 7 is only applicable if the company has loss sensitive contracts. Part 7 is shown separately for primary and reinsurance contracts. It has the distinction of being "designed by the American Academy of Actuaries Task Force on Risk-Based Capital (RBC)."[2, Page 56] "The calculated amount, or RBC, is compared to the total adjusted capital for the insurance company at year-end to determine the level, if any, of company or regulatory action required from a solvency perspective."[1, Page 422] This RBC amount can be reduced if a company claims loss sensitive contracts.

The loss sensitive contracts inclusion in Schedule P may seem odd but the RBC underwriting risk charges "use the Schedule P line division, and premium sensitivity relates to loss and premium development. In addition, the NAIC feared that companies would be less likely to mis-classify a contract as loss sensitive if the reporting were in Schedule P, which most companies treat with more diligence."[2, Page 57] That statement also doubles as quite an endorsement of the importance of Schedule P.

**Schedule P Interrogatories**

"The Schedule P Interrogatories are a series of seven questions that the insurance company is required to answer to provide further insight into the information reported in Schedule P."[1, Page 197] Question 1 has six parts and is in regard to extended reporting endorsements that arise from death, disability, or retirement (DDR). "In the 1990s, DDR endorsements were issued for free and known as 'free tail coverage' as a marketing effort by medical insurers to attract physicians. Many such DDR extended reporting period endorsements are still offered for free."[1, Page 197] The first part of Question 1 is about whether these are, indeed, offered for free or at a reduced rate. The other five parts are in regard to how the DDR is reported.

DCC and AO underwent a definitional change effective January 1, 1998. Question 2 serves to identify how DCC and AO are being reported. Having this definitional knowledge is imperative to anyone performing reserve adequacy tests using Schedule P. Question 3 pertains to AO expense payments and reserves, and how they should be allocated to the years in which losses were incurred.

Question 4 is about whether the recorded loss and LAE reserves are net of non-tabular discounts. Along with the inquiry, Question 4 reminds the user of the duties and responsibilities required in regard to the use of discounts. Question 5 simply asks for the net premiums in force at the end of the year for Fidelity and Surety.

A very important distinction for claim counts is whether they are reported on a per-claim or per-claimant basis. Question 6 addresses this distinction and is vital in the many ways of assessing reserve adequacy.

Question 7 asks if there is anything especially significant that the users of the financial statement should be aware of. Question 7 is open ended so that the company would be free to address any concerns not specifically questioned. "The Annual Statement

Instructions list several items that should be described in the interrogatory:

· A change in the method of counting claims.

· The intercompany pooling of only a portion of the business.

· Changes in the intercompany pooling arrangement.

Other material changes should be noted."[2, Page 67] A Question 7 note suggests that, if needed, an extended statement to answer this question may be attached.

**Common Errors**

The completion of Schedule P correctly isn't exactly a straightforward exercise. As a result, companies frequently make errors in completing the various Schedule P sections. Some of the more common errors are described below.

Policy Year Completion

As previously indicated, claims data should be reported in Schedule P based on the accident year or report year, depending on the policy form, and premiums should be those earned during the calendar years shown. However, some companies report claims and premium information based on the date of the policy being issued. Doing so is incorrect, and will often result in indicated adverse development in Schedule P that might cause alarm when no issues might actually exist. This indicated development occurs due to completion of a policy year after the year end valuation date since most policy periods are not complete at exactly the end of the year. In other words, policy year accounting would allow for claims incurred after the valuation date to be included in historical years in Schedule P in future annual statements. This is contrasted with the accident and report year definitions that are, by definition, closed to newly incurred claims after the valuation date.

Accident Year vs. Report Year

Claims data associated with policies issued on a claims-made basis should be assigned to report years whereas claims data associated with policies issued on an occurrence basis should be assigned to accident years. Some companies have been known to report all claims based on the accident date. Alternatively, companies issuing tail policies should report amounts on an accident year basis, whereas many report them on a report year basis.

Earned Premiums

Schedule P Part 6 is one of the more common parts that companies report incorrectly for a variety of reasons. Premiums are often moving up or down by sizable amounts across a given row which shouldn't typically occur.

**Conclusion**

The information reported in Schedule P can be a valuable tool in evaluating the performance of an insurance company. However, doing so requires that the information contained in Schedule P be accurate and appropriately understood by the user.

## About the Authors

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# Parametric Risk Transfer Finds its Home in Vermont

## Does the New Captive Bill Serve as a Blueprint for the Whole Industry?

*By Dr. Marcus Schmalbach*
*Founder and CEO of RYSKEX Inc.*

*"It ain´t what you don´t know that gets you into trouble.*
*It´s what you know for sure that just ain´t so." (Mark Twain)*

*Over the past several years, an initiative of experts from Vermont's Department for Financial Regulations (DFR), as well as Rich Smith former President of the Vermont Captive Insurance Association (VCIA), and experts from the captive industry worked on this project which has now been passed as a section of Vermont's Captive bill. The following article takes a closer look at the background and implications.*

**Status Quo & Challenges**

Today's global companies are forced to deal with a variety of risks. In addition to traditional risks, a stronger emphasis is being placed on intangible assets, emerging & systemic risks (e.g. pandemics and weather events). The triggers vary, but the impact is felt globally. The world is increasingly coming apart at the seams, and the impact of disasters is increasingly having an impact on the globalized, digitized world economy. We have reached the point where intangible assets (e.g. brand and reputation), business interruption, climate change and cyber are of much greater importance for the continued existence of a company than traditional risks such as liability claims or the burning down of production facilities. It is therefore necessary to address these new and emerging risks with innovative solutions, such as contemporary legislation and modern hedging approaches. Not all risks are transferred to an insurer; even if the companies would like them to be, insurers will not accept all risks. Many are uninsurable, or insurable to only a limited extent. The reason for this is the insurance approach, which is based on the "law of large numbers" and reaches its limits for global catastrophe risks that are not calculable or difficult to calculate, or no risk equalization can be guaranteed via the masses.

The crucial question finally is – how much insurance does the world need? How much insurance does the world need? A risk or captive manager might glibly answer "as much as possible". A more considered way of answering the question would be to examine the current value of the assets that require protecting, and the scale of losses that might be expected to occur. In this way, two indicators can be calculated: the penetration rate and the coverage gap. The first could be a comparison between the total value of assets and the total value of insurance cover. But since it is hard to calculate the total value of all assets that exist in the world, the insurance penetration rate is normally expressed as the ratio of premiums paid to GDP. For the last decade or so, this has typically been around 3% for non-life insurance according to the Swiss Re Institute. That means that if you viewed the whole earth as if it was a single economic entity - Global Inc, if you will – then that company would be spending 3% of its revenues on insurance. What does the truth look like? Let's go one step further, does the world really have an "all risk cover" for its balance sheet? The answer is no. On the one hand the coverage gap varies quiet markedly by geopraphic locations. While North America and Europe are mature economies with a reasonable level of cover, other parts of the world are significantly underinsured. In Asia in 2017 for example, out of total losses of $31bn, only $5bn was insured. The developing world is growing faster than the West, This, coupled with the Top 4 risks (Climate Change, Cyber, Terror/War, Pandemic) means that the coverage gap is likely to continue to worsen for the forseeable future.

**The ART Market 2.0**

At the same time, a changed risk landscape requires new hedging approaches. This is where Parametric Risk Transfer (PRT) comes in. The beauty of this is that it is free from the concept of demonstrable asset damage: you don't need to figure out what a particular asset is worth. Parametric Risk Transfer is as simple as an if/then statement: if this, then pay that. All that is needed is a trigger and a payout mechanism. The approach is not new and has been used in reinsurance for decades - mostly in the transfer of natural catastrophe risks. This form of claims settlement is nevertheless somewhat unusual for the traditional insurance market. In most cases, indemnity insurance is used as approach - this approach is in line with the industry's DNA.

The parametric approach, on the other hand, is used - almost exclusively - in the financial industry, the capital market. Why? Because accounts have to be smoothed very quickly and lengthy regulatory processes would have a negative impact on trading. The global market for derivatives has a notional principal value of $175 trillion, which corresponds to 350 times the capacity of the reinsurance market. The capital markets, with "their long familiarity with the underlying concepts", are a natural fit for parametric concepts. This explains the growth of insurance-linked securities (ILS). In 2019 some $11 billion of ILS risk capital was issued, which brings the total figure to an estimated $40 billion.

**Abstract: Demystification of Parametric**

Depending on how familiar you are with parametric here are some short infos to better follow the following thoughts and use case example:

*What is a parametric model?*

A Parametric Model is a concept used in statistics to describe a model in which all its information is represented within its parameters. In short, the only information needed to predict future or unknown values from the current value is the parameters. Parametric models often deal with discrete values.

*How does a parametric model work?*

Imagine a linear regression in which the straight line of the function is plotted across a graph. Without the graph, one can still predict values using only the parameters, the intercept and the coefficient. With these two parameters, one can predict any value along the regression.

Okay, admittedly, some of them are a little confused now, unfortunately. Therefore, here is a simple example that gets to the point: Let's take a hurricane. You no longer insure your damage, but the event. If the hurricane passes over your building with force X, you get a predefined amount of money paid out. No claim adjustment, no expense. Some of you will just smile, others will smile at it and argue with the argument "basic risk" and say that such a concept is not insurance and cannot work, certainly not for complex risks.

*Why switching from indemnity to parametric?*

Almost all concepts in the financial world are based on the parametric approach. It is always just about the rise and fall, of rates, prices, etc. If a certain point is exceeded or not reached, A owes money to its contract partner B or vice versa. But parametric concepts already exist in the insurance world. Especially in the area of weather risks. Often, these concepts are not known to traditional policyholders. In fact, the contracts between the reinsurance market and ILS Funds are parametric. Besides weather, some contracts in the field of epidemics are also known. And this approach makes it possible that insurers will soon be able to cover pandemics, global cyber attacks and the like? No. The reinsurers' approach was and still is based on the law of large numbers. this is the original business model - balancing risks collectively. If everyone is / could be affected by a loss at the same time, this concept does not work. But as already mentioned, the approach is widespread in the capital market and these "risk carriers" have completely different conceptual capabilities to use completely different hedging mechanisms than the insurance industry does.

**Example Case:**

The prevailing pandemic. Let's assume that the captive of an airline has secured itself against the grounding of its jets. The contract simply states that if we are forced to keep at least Y percent of our aircraft in the hangar for longer than X weeks, we will receive amount Z from the risk taker.

Hand on heart, can you imagine an insurance contract of the future looking like this? Hardly.

An actuary would go nuts and ask a million questions as part of his training, the underwriter would turn that sentence into a two hundred page contract with the help of the lawyers, and so on. Deals like this are not based on insurance DNA.

Let's switch from the Underwriting Room in the City to a Wall Street hedge fund on Wall manager. He does not receive the information in paper form from the broker, but receives it digitally directly from the airline's captive. Will he buy the risk? If the price is right for sure. The difference is that he has completely different options for assessing the risk. On the one hand, he knows that in the event of a grounding he would learn about it very early and could sell shares in the airline short. On the other hand, he could buy shares of providers of other airlines, or, as in the case of the pandemic, the shares of video chat providers.

**Captive meets Capital Market**

Between a captive and its parent company, we can assume a high degree of information symmetry. After all, they are part of the same entity, so it is unlikely that there are any skeletons in the closet yet to be discovered. The parent pays a premium to the captive. If the captive can then place this risk elsewhere at a lower premium, it will become a corporate profit centre.

In the traditional captive insurance model, risk is placed through underwriters and reinsurers. The premiums are higher because of the information asymmetry, along with the administrative costs. But if the risk is bundled in a structure which fits—and can therefore be placed—in the global capital markets, the costs can be dramatically reduced.

Parametric risk trading eliminates the arduous and lengthy claims process and reduces broker and administrative fees. Some models suggest that the potential cost savings through parametric solutions can be as high as 45 percent. With cost savings of this magnitude, lower premiums are clearly possible and may be low enough to turn the captive into a profit centre.

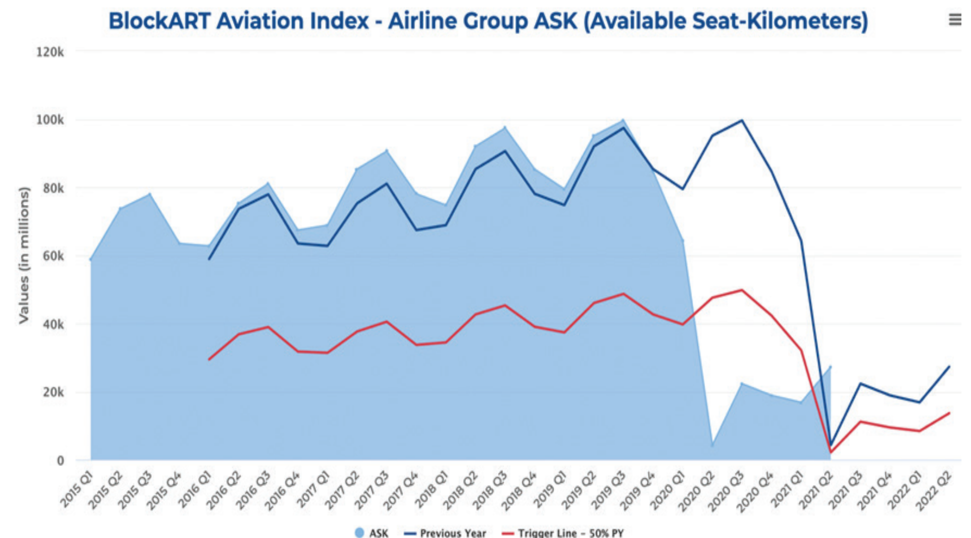
The mixing of the captives industry with the capital market seems to be a logical consequence and answer to the prevailing volatile, uncertain, complex, and ambiguous world. It creates a win-win situation. Captives can take and trade bigger risks—that are harder to price—from their parent companies. At the same time, the capital market and its participants can expand their investment portfolio (risk as an asset class).

The core of this symbiosis is index-based, also known as Parametric Risk Transfer. These solutions, in turn, accelerate the development of technologies such as blockchain and artificial intelligence (AI). The fundamental linchpin of pricing risk comes down to knowledge: the more you know, the more you can price the risk. This is where the Mark Twain quote comes in. It was often communicated that, for example, non-damage BI solutions are not feasible and risks of this kind cannot be insured. That is correct! But non-insurable does not mean that they are not transferable or tradable.

**PRT Use Case Example**

The following is a presentation of the Non-Damage BI solution, which was designed for a company in the aviation industry. The captive's objective was to hedge against falling passenger numbers. The compensation of 1 billion dollars is therefore not linked to a classic insurance risk, but to the impact on the company. The trigger model created by BlockART Institute is based on two triggers. One is the ASK (Available Seat Kilometer – see below

Figure I: BlockART Aviation Index



the previous year's values would have fallen short by 50%. If the ASK values fall below 50 percent of the previous year, the first trigger is activated. The data are shown quarterly to make it clearer to the reader. The more granular the data is available (hourly or daily tracking) the better one can calculate the future development and the resulting undercutting of the 50% line with the help of an AI solution. Of course, you can also set the trigger above or below 50 percent, which has an effect on the probability of occurrence, the premium and the number of potential Risker Takers. The second trigger is the time factor. The customer could demand the payout as soon as the index falls below the ASK number for one day - in the chosen example 50 percent. This, in turn, would result in an extremely high premium and, accordingly, is not recommended. The premium is minimized with every day that the ASK falls below the 50 percent without claiming the payment of the compensation sum. It is therefore a "deductible" that is linked to the time factor. Another set screw in the premium determination is whether the billion should be paid out in full, or in installments. For example, 125 million per month over a period of eight months. Various components that the customer can calculate and put together until he has found the best possible solution for himself between costs and form of compensation.

**Parametric Risk Transfer add to Captive bill in Vermont – what the future looks like**

Vermont has the most licensed captives in the United States. Here the experts of the industry are at home as early adopters of innovations in risk management and processes. The digital transformation of the industry—led by blockchain technology—will be another milestone in the innovative power of the State of Vermont and its market participants.

The expansion of this network to include Ryskex as a technology enabler, and the financial power of the capital market, complement this network to ensure Vermont's dominance—even in a digital future.

*Risk transfer platform*

A risk trading platform will enable development of peer-to-peer risk placements and direct transfer from risk trader to risk taker, being a trading platform for traditional but also emerging risks. There will be innovative solution approaches such as parametric risk trading for hard-to-cover, hard-to-place risks such as intangible assets, non-damage business interruption, cyber, climate change and terrorism.

*Standardized risk exchange*

It will be a risk exchange based on blockchain and driven by AI that links demand (captives) and supply (third-party captives, reinsurers, investment banks and funds). Due to the smart contract structure, contracts can be negotiated, fixed and documented within 48 hours.

*Claims solution*

It will be a claims process based on automated rules called "triggers“ and confirmed by independent third parties called "veritas“, driven by smart contracts in the blockchain to speed up the adjustment, management and settlement of claims and payment.

This form of hedging therefore has little or nothing in common with the classic insurance approach. Although there are companies working on parametric solutions, especially in the world‘s startup centers such as Silicon Valley, London, Tel Aviv and Berlin, these are linked to traditional insurers and therefore do not increase market capacity at all. The team led by Michael S. Pieciak, Commissioner of Vermont Department of Financial Regulations went a step further and now allows Vermont-based captives the ability to purchase capacity outside of the traditional re-insurance industry. Deputy-Commissioner David Provost: "Our proposed legislation makes it explicit that a captive insurance company may accept or transfer risk by means of a parametric contract, and that any captive that does so must comply with all applicable State and federal laws and regulations." According to David Provost, the objective is "to best support our captives and their parent companies in being able to find risk capacity, not only in the traditional insurance market, but also in the capital markets.“

**Conclusion**

Blockchain and AI are emerging technologies which promise to transform the captive insurance industry and serve as a toolkit to solve problems in the industry. What is needed is a standardised risk-transfer platform that turns the most promising elements of this emerging insurtech into a tool that captive insurers can use to manage emerging and systemic risks which the insurance industry otherwise struggles to manage. New approaches are needed to generate new capacity - Parametric Risk Transfer. This solution is not designed to replace classic (re-)insurance, but to complement it. Various experts may still believe that there cannot be such a solution because it simply does not exist yet - these I gladly refer again to Mark Twain‘s quote. Vermont has come forward and heralded the digital future of risk transfer. This is certainly a blueprint for other innovative captive domiciles around the world.

## About the Author

**Dr. Marcus Schmalbach** is Founder and CEO of RYSKEX Inc., based in New York City. He has a long-standing experience in risk and captive management in various industries. Before the founding of RYSKEX he was Head of German MBA program. He is still working as a visiting professor on Risk and Finance matters, and academic head of BlockART Institute with a research focus on Parametric Risk Transfer. He is Professor at ESCP Business School, Paris, France with a research and lecturing focus on Blockchain Technology and Artificial Intelligence.

# Market Briefing -2Q 2022 - Industry Assets

*By Edward Toy*
*Risk & Regulatory Consulting, LLC Reprint*

## Introduction

The COVID-19 Pandemic resulted in economic turmoil and substantial disruption to virtually every investment market in 2020. In many ways the recovery in the second half of 2020 and into 2021 was nearly as surprising to analysts. The areas of potential concern were overtaken by the end of 2021 by inflationary pressures. Rising measures of inflation were driven by supply chain problems and rising oil prices. Then, in February 2022, the Russian invasion of the Ukraine caused further economic disruptions and also led to significant economic sanctions imposed on Russia. In conjunction with an inflation rate that hit 8.5% in March 2022, there are now increasing concerns of a global recession. With all of this as a backdrop, U.S. insurance companies reported detailed information on their investments as of year-end 2021. This allows us to consider how investments may have changed for the different insurer types and how the continuing market volatility may have impacted those investments. It also gives us the opportunity to consider the year-end data in the context of what has happened to markets since then. *[The data for insurance company investments was all based on Financial Statement Data submitted to the NAIC and acquired via SNL, which is a unit of S&P Global. Market data was acquired via the Federal Reserve Bank of St. Louis.]*

## U.S. Insurer Invested Assets

| | Combined | | Life | | P&C | | Health | |
|---|---|---|---|---|---|---|---|---|
| | 2020 | 2021 | 2020Y | 2021Y | 2020Y | 2021Y | 2020Y | 2021Y |
| **SHORT TERM INVESTMENTS** | | | | | | | | |
| ST Investments & Cash Equivalents | 290,882,654 | 290,752,667 | 124,142,192 | 114,961,708 | 123,943,723 | 138,340,006 | 42,796,739 | 37,450,953 |
| **LONG TERM INVESTMENTS** | | | | | | | | |
| Corporate Bonds | 2,497,235,565 | 2,628,433,364 | 2,015,202,618 | 2,113,160,412 | 418,180,762 | 443,446,513 | 63,852,184 | 71,826,439 |
| Bank Loans | 68,277,983 | 89,404,313 | 52,675,395 | 67,890,982 | 13,622,839 | 19,282,188 | 1,979,750 | 2,231,144 |
| Government Bonds (incl Municipals) | 838,314,828 | 878,300,744 | 393,579,519 | 404,389,709 | 401,490,185 | 425,922,268 | 43,245,124 | 47,988,766 |
| Agency CMBS | 79,170,465 | 74,655,167 | 49,278,572 | 44,502,016 | 27,503,726 | 28,236,918 | 2,388,168 | 1,916,233 |
| Agency RMBS | 261,611,391 | 234,410,067 | 145,041,573 | 126,525,987 | 92,728,663 | 86,118,316 | 23,841,156 | 21,765,765 |
| Agency ABS | 23,552,446 | 22,125,028 | 14,625,670 | 13,385,718 | 8,306,313 | 8,098,054 | 620,463 | 641,256 |
| Non-Agency CMBS | 193,415,391 | 209,037,343 | 142,146,837 | 151,501,433 | 43,949,231 | 48,298,182 | 7,319,322 | 9,237,729 |
| Non-Agency RMBS | 92,823,726 | 93,393,944 | 74,316,266 | 71,050,408 | 16,476,491 | 19,320,829 | 2,030,969 | 3,022,707 |
| Non-Agency ABS | 417,340,628 | 470,570,290 | 329,968,266 | 363,507,886 | 74,180,737 | 91,272,437 | 13,191,625 | 15,789,966 |
| Hybrids | 19,128,825 | 20,623,736 | 14,619,217 | 14,983,420 | 3,987,496 | 4,981,816 | 522,111 | 658,500 |
| Approved Bond ETFs | 14,117,319 | 14,038,508 | 6,066,450 | 3,182,263 | 4,554,518 | 6,584,454 | 3,496,352 | 4,271,791 |
| **Subtotal Unaffiliated Bonds** | **4,504,988,567** | **4,734,992,505** | **3,237,520,383** | **3,374,080,235** | **1,104,980,959** | **1,181,561,974** | **162,487,225** | **179,350,295** |
| Preferred Stock | 27,437,240 | 35,204,784 | 13,442,433 | 18,226,886 | 13,326,766 | 15,969,831 | 668,041 | 1,008,068 |
| Common Stock | 435,658,919 | 560,238,739 | 32,304,589 | 41,001,895 | 393,081,337 | 508,917,488 | 10,272,994 | 10,319,356 |
| Funds reported as Common Stock | 54,549,082 | 59,769,878 | 6,993,715 | 6,815,705 | 31,545,685 | 35,380,901 | 16,009,682 | 17,573,272 |
| **Subtotal Unaffiliated Equity** | **517,645,241** | **655,213,401** | **52,740,737** | **66,044,486** | **437,953,787** | **560,268,220** | **26,950,717** | **28,900,695** |
| Commercial Mortgage Loans | 541,979,962 | 571,440,221 | 520,779,280 | 547,324,164 | 21,020,775 | 23,793,542 | 179,907 | 322,515 |
| Mezzanine Loans | 10,343,103 | 10,264,068 | 9,667,870 | 9,529,625 | 675,233 | 734,443 | - | - |
| Residential and Farm Mortgages | 56,595,849 | 69,225,121 | 54,962,310 | 66,974,251 | 1,633,539 | 2,250,871 | - | - |
| Problem Mortgages | 2,754,211 | 2,964,427 | 2,306,846 | 2,611,689 | 447,365 | 352,738 | - | - |
| Non-Insurer Occupied Real Estate | 21,364,849 | 21,407,360 | 16,591,782 | 16,761,896 | 4,620,319 | 4,470,878 | 152,747 | 174,585 |
| **Subtotal Real Estate Related** | **633,037,973** | **675,301,196** | **604,308,088** | **643,201,624** | **28,397,231** | **31,602,471** | **332,655** | **497,101** |
| Non-Conforming LT Assets | 192,991,167 | 246,978,263 | 128,246,476 | 164,892,069 | 57,086,062 | 72,575,182 | 7,658,630 | 9,511,013 |
| **Unaffiliated Long Term** | **5,818,839,393** | **6,281,871,829** | **4,022,815,683** | **4,248,218,414** | **1,628,418,039** | **1,846,007,847** | **197,429,225** | **218,259,104** |
| Affiliated Investments (incl Occupied RE) | 817,024,404 | 882,850,524 | 292,578,333 | 339,795,129 | 484,498,575 | 499,561,706 | 39,947,496 | 43,493,689 |
| **Grand Total - Long Term Investments** | **6,635,863,798** | **7,164,722,353** | **4,285,570,462** | **4,557,400,006** | **2,112,916,615** | **2,345,569,554** | **237,376,721** | **261,752,793** |

In 2021, historic trends continued as long-term invested assets grew from $6.6 trillion to $7.2 trillion. Within that, unaffiliated long-term invested assets grew from $5.8 trillion to $6.3 trillion. Asset growth was represented in all three insurer types, Life, P&C and Health.

| | Change 2020 to 2021 | | | | Percentage Change | | | |
|---|---|---|---|---|---|---|---|---|
| | Combined | Life | P&C | Health | Combined | Life | P&C | Health |
| **SHORT TERM INVESTMENTS** | | | | | | | | |
| ST Investments & Cash Equivalents | (129,987) | (9,180,484) | 14,396,283 | (5,345,786) | 0.0% | -7.4% | 11.6% | -12.5% |
| **LONG TERM INVESTMENTS** | | | | | 5.3% | 4.9% | 6.0% | 12.5% |
| Corporate Bonds | 131,197,800 | 97,957,794 | 25,265,751 | 7,974,255 | 30.9% | 28.9% | 41.5% | 12.7% |
| Bank Loans | 21,126,330 | 15,215,587 | 5,659,349 | 251,394 | 4.8% | 2.7% | 6.1% | 11.0% |
| Government Bonds (incl Municipals) | 39,985,915 | 10,810,190 | 24,432,084 | 4,743,642 | -5.7% | -9.7% | 2.7% | -19.8% |
| Agency CMBS | (4,515,298) | (4,776,555) | 733,192 | (471,935) | -10.4% | -12.8% | -7.1% | -8.7% |
| Agency RMBS | (27,201,324) | (18,515,586) | (6,610,347) | (2,075,391) | -6.1% | -8.5% | -2.5% | 3.4% |
| Agency ABS | (1,427,418) | (1,239,952) | (208,258) | 20,792 | 8.1% | 6.6% | 9.9% | 26.2% |
| Non-Agency CMBS | 15,621,952 | 9,354,595 | 4,348,950 | 1,918,406 | 0.6% | -4.4% | 17.3% | 48.8% |
| Non-Agency RMBS | 570,219 | (3,265,857) | 2,844,339 | 991,738 | 12.8% | 10.2% | 23.0% | 19.7% |
| Non-Agency ABS | 53,229,662 | 33,539,620 | 17,091,700 | 2,598,341 | 7.8% | 2.5% | 24.9% | 26.1% |
| Hybrids | 1,494,911 | 364,203 | 994,320 | 136,389 | -0.6% | -47.5% | 44.6% | 22.2% |
| Approved Bond ETFs | (78,811) | (2,884,186) | 2,029,936 | 775,439 | | | | |
| **Subtotal Unaffiliated Bonds** | **230,003,938** | **136,559,852** | **76,581,015** | **16,863,071** | **5.1%** | **4.2%** | **6.9%** | **10.4%** |
| Preferred Stock | 7,767,544 | 4,784,452 | 2,643,065 | 340,027 | 28.3% | 35.6% | 19.8% | 50.9% |
| Common Stock | 124,579,820 | 8,697,307 | 115,836,151 | 46,362 | 28.6% | 26.9% | 29.5% | 0.5% |
| Funds reported as Common Stock | 5,220,796 | (178,010) | 3,835,216 | 1,563,589 | 9.6% | -2.5% | 12.2% | 9.8% |
| **Subtotal Unaffiliated Equity** | **137,568,160** | **13,303,749** | **122,314,433** | **1,949,978** | **26.6%** | **25.2%** | **27.9%** | **7.2%** |
| Commercial Mortgage Loans | 29,460,259 | 26,544,884 | 2,772,767 | 142,608 | 5.4% | 5.1% | 13.2% | 79.3% |
| Mezzanine Loans | (79,035) | (138,245) | 59,210 | - | -0.8% | -1.4% | 8.8% | |
| Residential and Farm Mortgages | 12,629,272 | 12,011,940 | 617,332 | - | 22.3% | 21.9% | 37.8% | |
| Problem Mortgages | 210,216 | 304,843 | (94,627) | - | 7.6% | 13.2% | -21.2% | |
| Non-Insurer Occupied Real Estate | 42,511 | 170,114 | (149,441) | 21,838 | 0.2% | 1.0% | -3.2% | 14.3% |
| **Subtotal Real Estate Related** | **42,263,223** | **38,893,536** | **3,205,240** | **164,446** | **6.7%** | **6.4%** | **11.3%** | **49.4%** |
| Non-Conforming LT Assets | 53,987,096 | 36,645,593 | 15,489,120 | 1,852,383 | 28.0% | 28.6% | 27.1% | 24.2% |
| **Unaffiliated Long Term** | **463,032,436** | **225,402,730** | **217,589,808** | **20,829,879** | **8.0%** | **5.6%** | **13.4%** | **10.6%** |
| Affiliated Investments (incl Occupied RE) | 65,826,120 | 47,216,796 | 15,063,131 | 3,546,194 | 8.1% | 16.1% | 3.1% | 8.9% |
| **Grand Total - Long Term Investments** | **528,858,556** | **271,829,545** | **232,652,939** | **24,376,072** | **8.0%** | **6.3%** | **11.0%** | **10.3%** |

Focusing on unaffiliated long-term invested assets, the increase of $463.0 billion represented an 8.0% increase. This included $225.4 billion (5.6%) among Life companies, $217.6 billion (13.4%) for P&C, and $20.8 billion (10.6%) for Health. While Bonds as a percentage of the total continues to drift down, the asset type continues to account for roughly 75% of the total. This percentage is a bit higher for Life companies at approximately 80% and Health at approximately 82%, while P&C is at 68%. With equity markets strong in 2021 as the S&P 500 index was up 27%, overall equity exposures increased by 26.6%. This was most significant among P&C companies which reported an increase in dollar exposure of $122.3 billion. In addition to equities reported on Schedule D, the strong equity markets were also very likely the main contributor to growth in Investments Reported on Schedule BA as a large percentage of those investments were private equity funds and other equity like investments. Nothwithstanding the growth in dollars, unaffiliated Investments Reported on Schedule BA still account for less than 4% of the total. There are a few noteworthy points to make for Affiliated Investments. In one respect, equity investments in various affiliates likely contributed to growth in 2021 along with improving valuation across equities. In addition to that, it has been noted that an increasing number of reported affiliated investments are investment affiliates whereby the affiliate is a conduit for market-related investments. Insurer-occupied real estate is also material within Affiliated Investments for Health insurers.

Within total Bonds, Bank Loan exposure continues to grow and now accounts for 1.4% of the total. Residential Mortgage-Backed Securities (RMBS) exposure has continued to decline. Commercial Mortgage-Backed Securities (CMBS) exposure continues to grow, but that growth has leveled off. Continued growth in Non-Agency Asset-Backed Securities (ABS) is notable increasing by $53.2 billion (26.6%) in 2021 and now accounting for 7.5% of the total. Mortgage Loan investments increased in 2021 but at a slower rate than overall asset growth. Standing out from that were investments in Residential and Farm Loans which, while accounting for only $69.2 billion, increased by 22.3% in 2021.

| | Combined | | Life | | P&C | | Health | |
|---|---|---|---|---|---|---|---|---|
| | 2020Y | 2021Y | 2020Y | 2021Y | 2020Y | 2021Y | 2020Y | 2021Y |
| Bond Portfolio Maturity Score | 12.19 | 12.49 | 13.95 | 14.38 | 7.95 | 8.02 | 7.36 | 7.74 |
| 1 or less | 10.45% | 9.72% | 7.75% | 6.89% | 16.76% | 16.67% | 19.19% | 15.16% |
| 1 to 5 | 30.48% | 30.12% | 25.83% | 25.29% | 41.54% | 41.07% | 44.43% | 45.56% |
| 5 to 10 | 28.60% | 28.18% | 28.08% | 27.33% | 30.18% | 30.29% | 27.70% | 29.69% |
| 10 to 20 | 14.37% | 15.24% | 17.29% | 18.35% | 7.65% | 8.17% | 4.29% | 5.34% |
| greater than 20 | 16.10% | 16.75% | 21.05% | 22.15% | 3.87% | 3.80% | 4.40% | 4.25% |
| Greater than 10 year | 30.47% | 31.99% | 38.33% | 40.50% | 11.52% | 11.97% | 8.68% | 9.59% |

Bond maturities are not a direct measure of duration but generally are an indicator of possible interest rate risk. In 2021, all three insurer types reported modest upticks on average bond maturities. This trend is a continuation for Life companies but is a slight reversal for P&C and Health companies. Most significant were the increases in Bonds held that had maturities of greater than ten years.

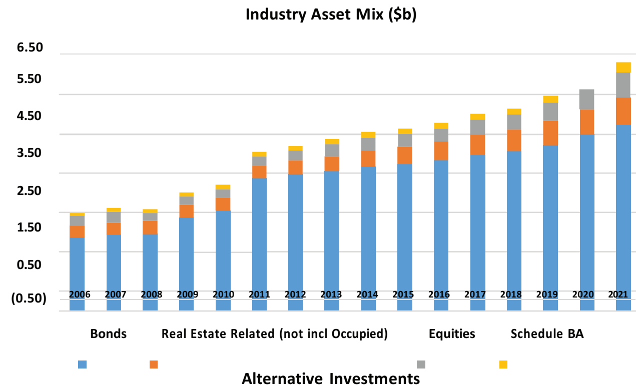
| | Combined | | Life | | P&C | | Health | |
|---|---|---|---|---|---|---|---|---|
| | 2020Y | 2021Y | 2020Y | 2021Y | 2020Y | 2021Y | 2020Y | 2021Y |
| Bond Portfolio Credit Sore | 1.46 | 1.46 | 1.52 | 1.52 | 1.31 | 1.32 | 1.34 | 1.38 |
| NAIC 1 | 63.01% | 62.58% | 57.33% | 56.79% | 77.25% | 76.88% | 74.43% | 72.31% |
| NAIC 2 | 31.09% | 31.64% | 36.49% | 37.33% | 17.60% | 17.77% | 19.69% | 20.66% |
| NAIC 3 | 3.65% | 3.53% | 4.02% | 3.78% | 2.64% | 2.73% | 3.46% | 4.21% |
| NAIC 4 | 1.68% | 1.70% | 1.57% | 1.52% | 1.91% | 2.08% | 2.09% | 2.51% |
| NAIC 5 | 0.49% | 0.41% | 0.51% | 0.42% | 0.47% | 0.43% | 0.24% | 0.20% |
| NAIC 6 | 0.09% | 0.14% | 0.07% | 0.15% | 0.13% | 0.12% | 0.09% | 0.11% |
| Below Investment Grade | 5.90% | 5.79% | 6.18% | 5.88% | 5.14% | 5.35% | 5.88% | 7.03% |

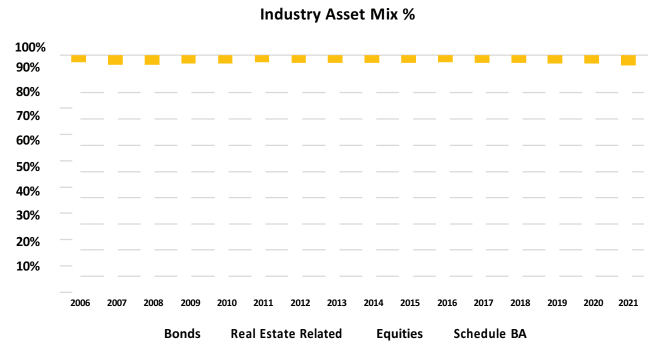
From the standpoint of credit risk in the Bond portfolio, 2021 metrics were not significantly different from 2020. There had been increases in exposure to below investment grade bonds in 2020 due to rating downgrades. In 2021, Life insurer exposure decreased slightly, while P&C and Health companies continued recent increases. Health insurers, in particular, reported exposure to below investment grade Bonds increasing from 5.88% of Bonds to 7.03%. In addition, there were increases for all three insurer types for investments with a NAIC 2 Designation as opposed to a NAIC 1 Designation.

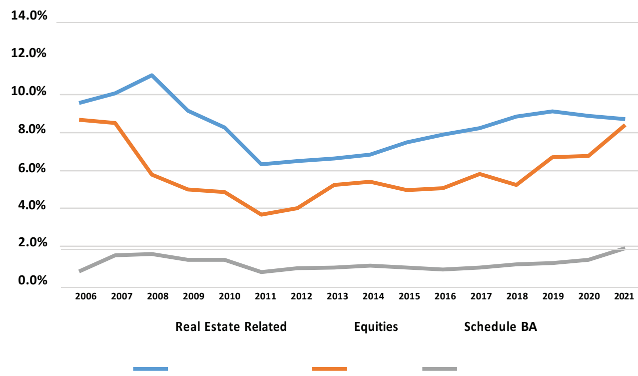
| | Combined | | Life | | P&C | | Health | |
|---|---|---|---|---|---|---|---|---|
| | 2020Y | 2021Y | 2020Y | 2021Y | 2020Y | 2021Y | 2020Y | 2021Y |
| Derivatives | | | | | | | | |
| Carrying Value | 41,146,717 | 37,736,738 | 41,382,017 | 37,746,812 | (236,221) | (5,318) | 921 | (4,755) |
| Fair Value | 55,114,958 | 49,650,980 | 55,429,177 | 49,719,960 | (256,255) | (22,753) | (57,963) | (46,227) |
| Private Placements % of Bonds | 36.84 | 39.20 | 41.34 | 43.42 | 25.61 | 29.01 | 23.49 | 26.98 |
| Foreign Bonds % of Bonds | 14.52 | 14.95 | 17.00 | 17.51 | 8.21 | 8.63 | 7.83 | 8.57 |
| Securities Lending | 82,435,655 | 96,263,551 | 72,826,090 | 83,317,252 | 7,900,165 | 10,245,889 | 1,709,400 | 2,700,410 |
| Assets Pledged as Collateral | 222,156,069 | 238,946,787 | 180,345,443 | 199,441,890 | 36,932,156 | 33,093,330 | 4,878,469 | 6,411,568 |

Other data points that we have continued to focus on are derivatives exposures, private bonds as a percent of the total, and foreign bonds as a percent of the total. For each of these, recent trends have continued. Securities Lending activity (including Repurchase Agreements) saw a fairly significant jump in 2021 and was its highest point since detailed reporting on the activity was enhanced in 2010. Another metric worth considering is Assets Pledged as Collateral. Representing a category within reported Restricted Assets, this may reflect on actual liquidity of invested assets. These assets are not freely tradeable while they are pledged and oftentimes they represent some of the more liquid and least volatile assets in an investment portfolio. This category increased to $238.9 billion in 2021.

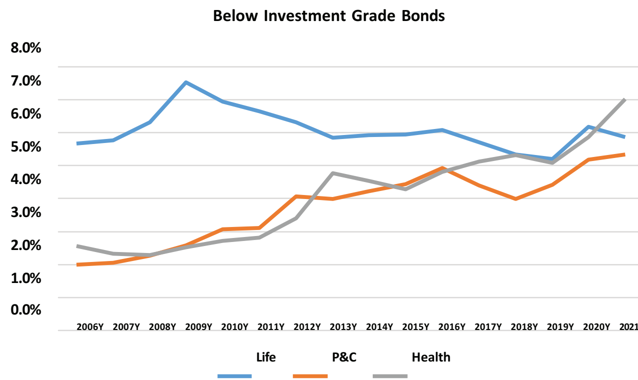
## Historic Trends



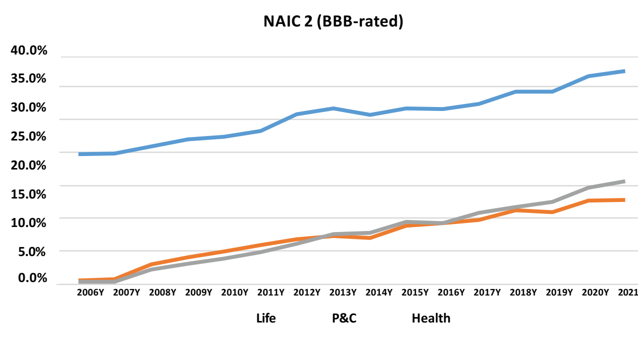



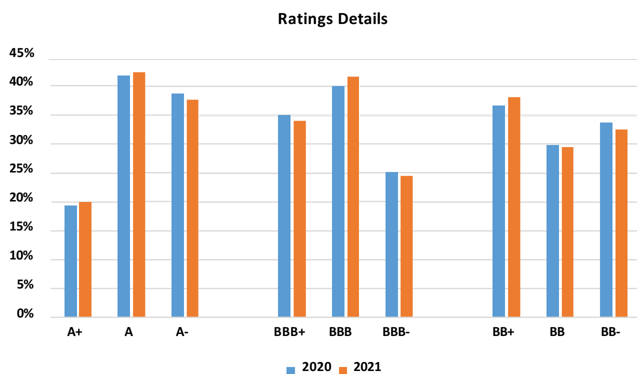

Total insurance industry invested assets trends have been consistent through 2021. This is true for general growth in assets as well as percentages for each major asset type. Highlighting Alternative Investments, which we define as Real Estate Related, Equities and Investments Reported on Schedule BA, the most significant point to note is the continued growth in Equities. This shift has been driven by strong equity markets, which as previously mentioned, also accounted for some of the growth in Investments Reported on Schedule BA. Investments Reported on Schedule BA also include Collateral Loans, which has seen significant growth since 2011.



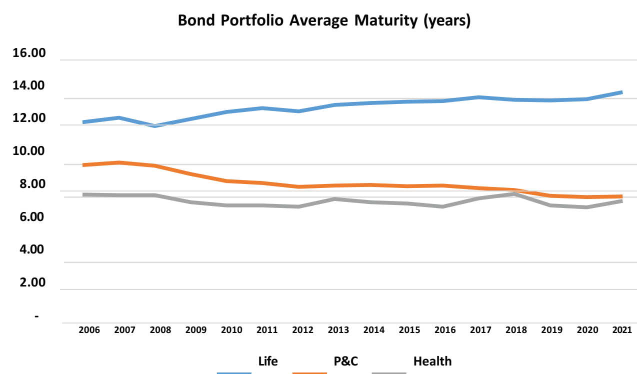

It has generally been the expectation that Life insurers have significant credit risk exposure as represented by below investment grade bonds. As a percent of total Bonds, the Life industry exposure has been relatively static since 2006 with some obvious upticks with the Great Financial Crisis and in 2020. Also, very apparent has been the continued increasing trend for P&C and Health insurers. As a percent of total Bonds, P&C is almost comparable to Life, and Health, for the first time, actually exceeds Life. This is a significant change from the earlier data when exposure for those two insurer types was only around 2%.



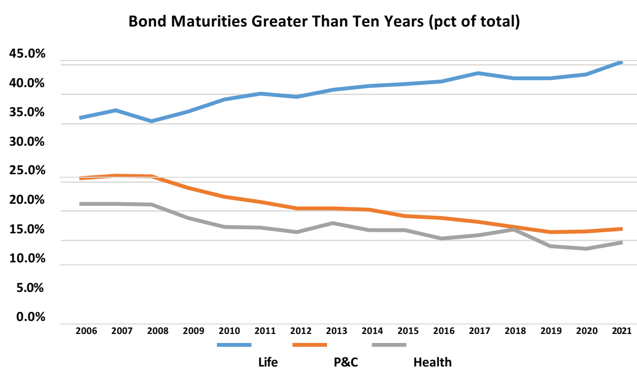

Complementing the exposure to below investment grade bonds are those with a NAIC 2 Designation, which indicates a BBB-rating. There have been very consistent increases for all three insurer types as this part of capital markets has grown. Analysis by rating agencies has generally noted that BBB-rated bonds account for roughly 50% of the investment grade bond market. The increased exposure to BBB-rated bonds may be material as it represents the Bonds at greatest risk of downgrade to below investment grade.




Specific to the risk of downgrade to below investment grade is a more granular detail of each rating grouping. Greater detail has been available since 2020 and new, more granular, Risk-Based Capital (RBC) factors became effective in 2021. Overall, the industry does not appear to be overweighted in any of the sub-categories that are most at risk of downgrade to the next category (A-minus to BBB, BBB-minus to BB and BB-minus to B). This is, of course, broad industry data and some individual insurers may have been significantly overweighted.

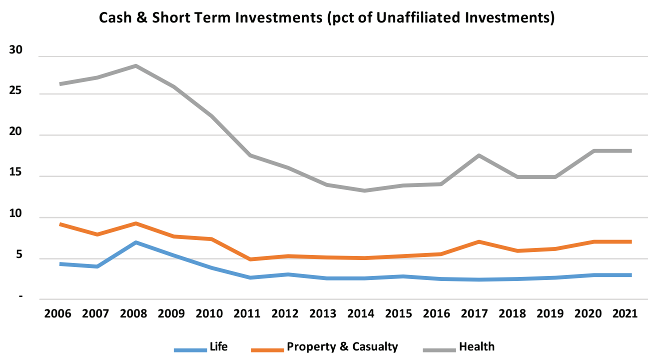



While there have been significant swings in interest rates over the last 15 years, the Bond maturity profile of the three insurer types has not changed significantly. There have often been concerns expressed that insurers may be taking on significantly greater interest rate risk in a search for yield. The long-term trends would seem to indicate otherwise, at least on an industry-wide basis. Life companies have been lengthening maturities, but very gradually. And notwithstanding an uptick in 2021, P&C and Health companies have generally been trending downward.

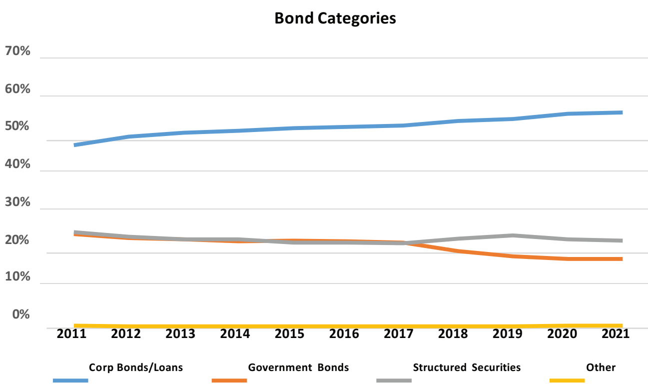



Most significant for longer maturities and the possibility of increased interest rate risk are bonds with maturities of longer than ten years. These percentages generally mirror the average maturities graph. For the Life industry, the percent of bonds with a maturity greater than ten years crossed the 40% threshold in 2021. While there are other variables besides maturity that impact actual duration, a ten-year bond is likely to have a duration of around eight years, and a 30-year bond will have a duration of as high as twenty years.

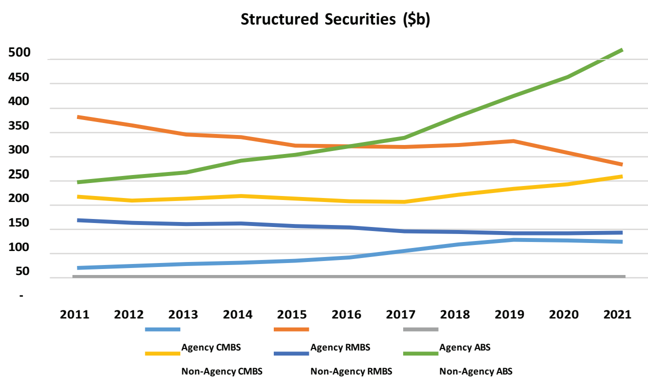
It is important to consider the various metrics for maturity or duration of an insurer's bond portfolio in the context of that company's liabilities. For Life insurers, the gradual lengthening of maturities may be appropriate, as liabilities have historically been longer in duration than what is available for invested assets. While a duration of twenty years means a 100 basis points increase in market yields will result in a decline in fair market value of as much as 20%, this may not be an issue or concern if the insurer can hold the bond until maturity. P&C and Health companies are expected to keep shorter duration portfolios. Their shorter duration, and somewhat less predictable liability needs, mean there is less of an ability to absorb market value volatility.




Cash and Short-Term Investments as a percent of total invested assets declined for all three insurer types through 2012. This trend reversed somewhat, especially for Health insurers, most likely due to liquidity concerns that may have arisen with the COVID-19 Pandemic. This trend held relatively unchanged in 2021 from 2020.

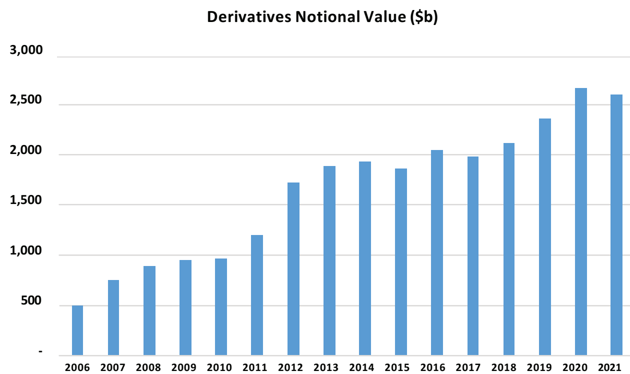



The historical trend for U.S. insurers has been a decline in Government Bonds, offset by an increase in Structured Securities. This shift may also be considered in conjunction with the previously noted decline in Cash and Short-Term Investments as the market value stability of Government Bonds allows those investments to be a reasonable source of additional liquidity. Due to their potential complexity and smaller market, Structured Securities are generally considered somewhat less liquid. Other, which includes Hybrid structures and Approved Bond ETFs, remains an immaterial percentage.

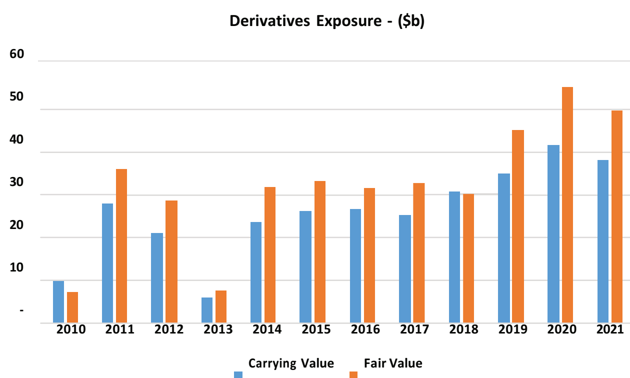



Within Structured Securities, the dollar amount for Non-Agency ABS continues to grow. As a result, the Non-Agency ABS represents 42.6% of the industry's Structured Securities, an increase from 23.0% in 2011 and from 39.1% in 2020. The most significant declines in percentages were Agency-Backed RMBS (21.2% in 2012 versus 38.6% in 2011) and Non-Agency RMBS (8.5% in 2021 and 13.9% in 2011). While there a variety of different asset types that fall under ABS, the main driver of growth has been in Collateralized Loan Obligations (CLOs).

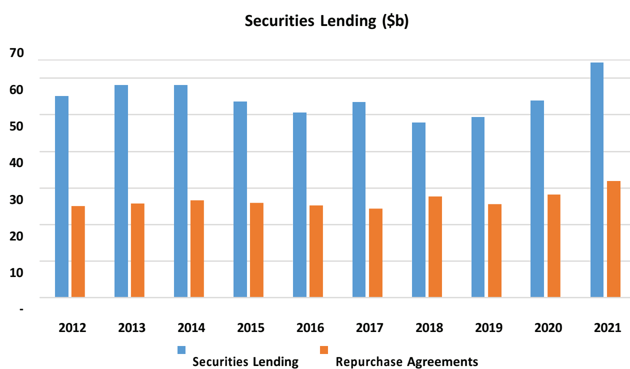
The growth in the CLO market generally has drawn significant regulatory attention in recent years along with growth in the Bank Loan market which also represents the underlying assets within CLOs. Regulatory concerns reflect on the risk of loosening underwriting standards of Bank Loans. The various structural complexities of different CLO tranches have also led to questions of whether investors have an adequate understanding of the risks. For the insurance industry's investments, the majority of holdings are either AAA-rated senior classes or AA-rated mezzanine classes, which significantly mitigates these concerns. With the increasing investments, a focus on exposure to lower-rated subordinate classes and the experience and expertise of insurers with Structured Securities in general is warranted.



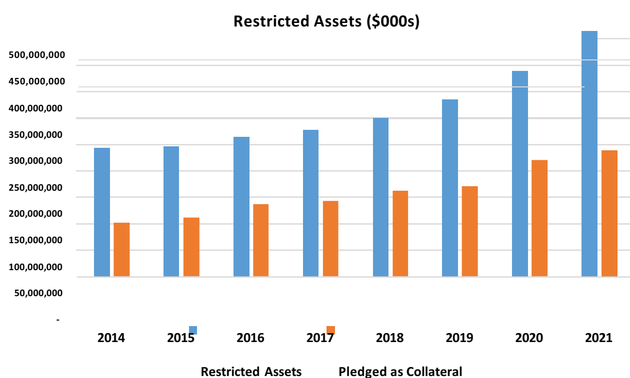

The U.S. insurance industry's derivatives activities, which are mostly among Life insurers, peaked at a little more than $2.5 trillion in notional value in 2020 before drifting downward slightly in 2021. While a significant metric of activity, this does not represent a measure of risk or exposure. The vast majority of activity is also used for hedging purposes, although only a small percentage is deemed to be Hedge Effective for Statutory Accounting purposes.




More meaningful measures of derivatives exposure are the reported carrying value and fair value estimates. Fair value estimates have increased significantly since 2018 but declined somewhat in 2021. The reported carrying values followed a similar, but less pronounced, trend. Increased volatility in markets will materially impact valuations. Historically, interest rate related derivatives have been the most significant use of derivatives, but equity-related derivatives have seen significant increases in usage. As interest rates have begun to rise, this shift will not only drive changes in valuations but will likely also lead to changes in interest rate hedging strategies.



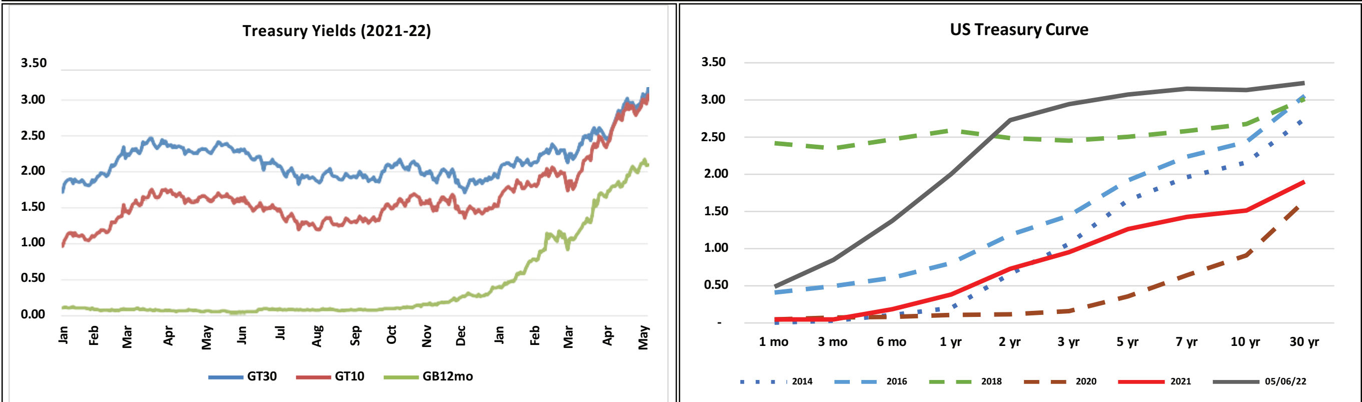

Securities Lending activity has seen gradual growth since hitting a low in 2018. Repurchase Agreements, which are economically similar transactions, have also seen some modest growth in recent years. Relative to the overall size of these markets, insurance industry participation is relatively small. The principal recognized risk is the potential for a duration mismatch between the Reinvested Cash Collateral and the tenor of the Securities Lending agreements. Following the disruptions from the 2008 Financial Crisis, the mismatch has generally been controlled.



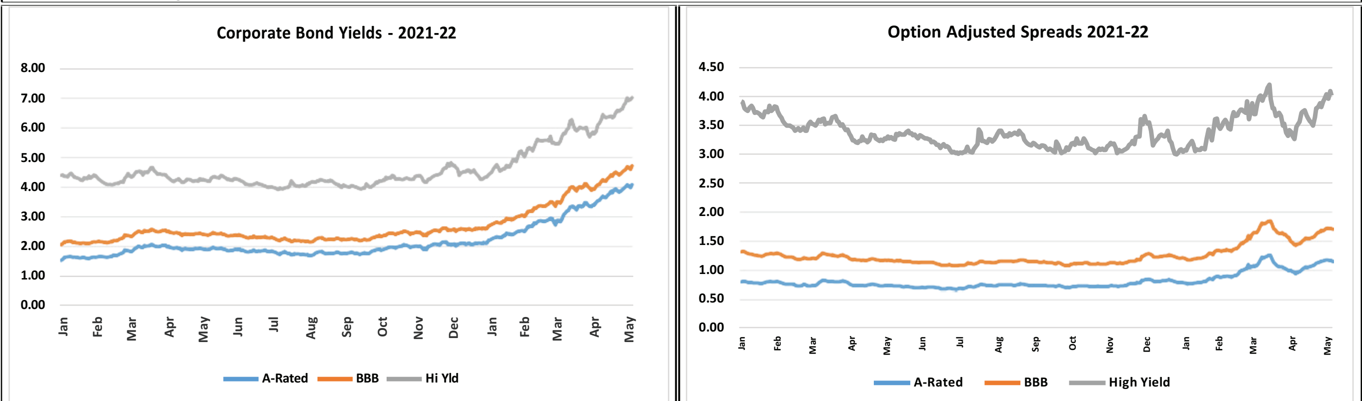

Restricted Assets, which includes Assets Pledged as Collateral, have increased significantly since 2017. This may impact basic measures of liquidity and affect liquidity management within insurers. Assets Pledged as Collateral include margin requirements for derivatives and will be impacted by increased volatility for different positions. Also included are assets pledged to Federal Home Loan Banks as Life insurers have increasingly used these borrowings to fund spread investing programs. This trend represents a leveraging of assets that, similar to Securities Lending, should not add materially to risk if it is tightly monitored and managed by insurers.

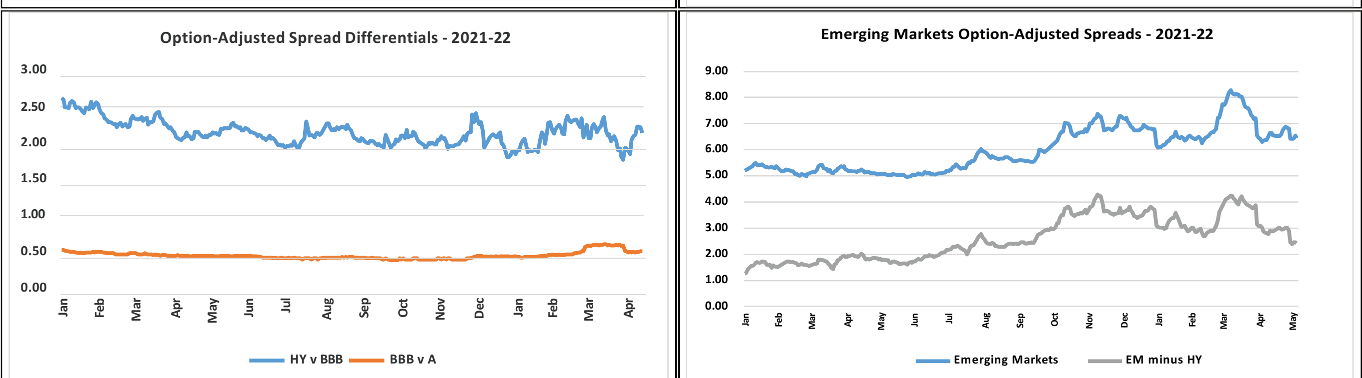
## Markets (through May 6, 2022)

The focus of this Market Briefing has been on U.S. insurer asset mix, changes in 2021 from 2020, and a longer term view over the last ten to fifteen years. Insurance company invested assets of course must be taken in the context of the overall market. With the COVID-19 Pandemic, the Federal Reserve Board of Governors (Fed) took extraordinary action to drive interest rates even lower from where they were. By the end of 2021, market dynamics had changed, leading the Fed to be concerned about inflation and deciding to increase interest rates. Investment markets had also generally recovered but market volatility has returned with the Russian invasion of the Ukraine.



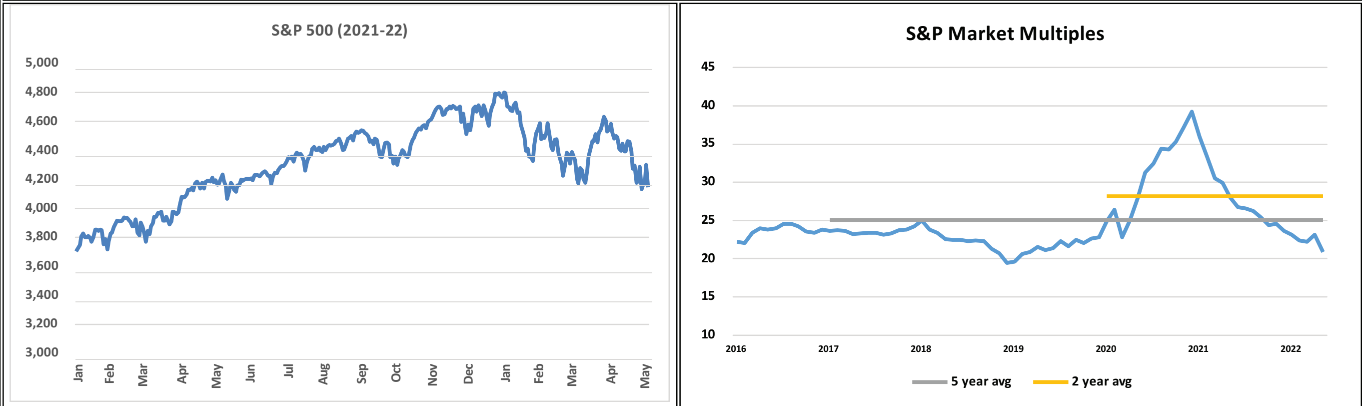

Fed monetary policy began to increase interest rates, most recently with announced actions at the March and May 2022 meetings. Interest rates on the shorter end of the yield curve have risen signficantly as a result. While longer term Treasury yields have also risen, the relative change has not followed the same line, resulting in a significant flattening of the yield curve beyond the two-year point. This flattening is driven by market concerns and expectations for a possible global economic recession.



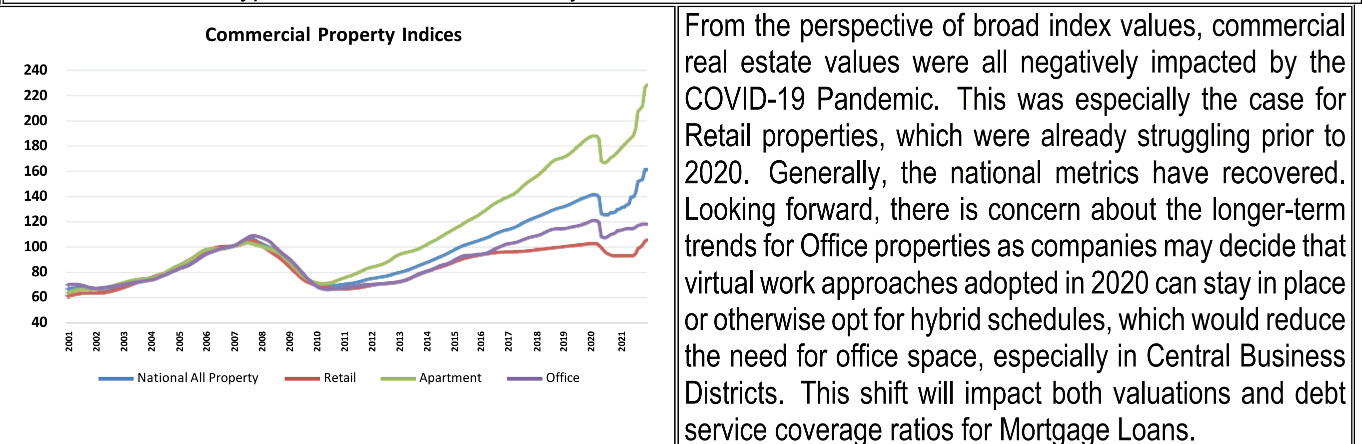




Corporate bond yields are a function of Treasury yields and option-adjusted spreads. Both of these were relatively stable through 2021. Yields have increased with the Fed activity since the end of 2021 and option-adjusted spreads have varied with concerns that the Russian invasion of the Ukraine may lead to economic problems that then could

increase defaults. In particular, the differential between spreads on high yield bonds and BBB-rated bonds, and with emerging markets bonds reflects this uncertainty.




Overall, the S&P 500 index ended 2021 up 27.0%, following on a 16.5% increase in 2020. In 2022, equity markets have been more volatile and generally taking on a negative tone. Continuing supply chain issues along with economic impacts from the Russian invasion of the Ukraine could put significant pressure on insurers' earnings. The S&P 500 has, on occasion, dropped by more than 10% from its recent peak indicating what is usually referred to as a "correction" (i.e., recovered somewhat, only to drop back down). Estimates of market multiples are generally subject to revisions as new earnings are announced, but with the recent downtick in valuations, S&P market multiples have declined to a more typical level over the last ten years.




From the perspective of broad index values, commercial real estate values were all negatively impacted by the COVID-19 Pandemic. This was especially the case for Retail properties, which were already struggling prior to 2020. Generally, the national metrics have recovered. Looking forward, there is concern about the longer-term trends for Office properties as companies may decide that virtual work approaches adopted in 2020 can stay in place or otherwise opt for hybrid schedules, which would reduce the need for office space, especially in Central Business Districts. This shift will impact both valuations and debt service coverage ratios for Mortgage Loans.

## A Few Remaining Words

The economic and market disruptions in 2020 had a negative impact on all investors including insurance companies. Thankfully, the market recovery in many respects was almost as quick as the initial downturn. Default rates among bonds and mortgage loans were not nearly as severe as initially expected. However, the recovery is now faced by different headwinds. Supply chain issues pushed inflation measures to levels not seen since the 1980's. While inflationary pressures are not likely to have any direct impact on investments, Fed action to raise interest rates will lead to downward pressure on valuations. There are also increasing concerns about the possibility of a recession in the next year or two.

Insurance industry investments in 2021 continued what have been long-term trends. Much of this is due to changing dynamics in the capital markets. Some is due to individual insurance companies searching for additional yield in the face of what had been a prolonged period of low interest rates. But low interest rates are no longer a phenomenon. The insurance industry weathered the disruptions of 2020 with a minimal increase in default experience and only a small increase in downgrades of bond holdings. Mortgage loan portfolios needed to be managed more carefully with

requests for payment deferrals and some restructurings. For the most part, those are back in full payment mode. Additionally, equity investments generally have done well.

However, volatility in valuations continue to be concern. Liquidity management is also taking on greater importance. As Cash and Short-Term Investments have declined as a percentage of assets, the percentage of long-term investments that are either less liquid, or more complex, or both, have increased. Restricted Assets and Assets Pledged as Collateral have also increased. The U.S. insurance industry, especially Life companies, has always benefited from a long-term time horizon and the ability to absorb short-term volatility. The question is if this historical activity as a prediction of future activity is still a valid premise with what has changed in the market and what has changed in insurers' portfolios.

**SOFE Editor's Note**: This Market Briefing was originally distributed by Risk & Regulatory Consulting, LLC on May, 11, 2022. Reprinted with permission.

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# PwC NAIC Newsletter

Spring 2022

The National Association of Insurance Commissioners met in Kansas City for the Spring National Meeting (in hybrid format). This newsletter contains information on activities that occurred in meetings from January 25 to May 2, 2022. For questions or comments on this Newsletter, please feel free to contact us at the address given on the last page.

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## *Executive summary*

- The Executive Committee and Plenary adopted the Long-Term Care Insurance Multistate Rate Review Framework, which is expected to be fully operational this fall.

- The Group Capital Calculation Working Group adopted as final the 2022 GCC template and instructions after approving revisions identified during their 2021 trial implementation, including removal of the stress scenario of a significant decline in available capital.

- The Innovation, Cybersecurity and Technology Task Force created a Collaboration Forum to address "foundational issues." The first topic to be studied by the Forum is unfair bias in algorithms.

- The Statutory Accounting Principles Working Group exposed for comment an Issue Paper and revised principles-based bond definition, which includes additional proposed guidance on the consideration of bonds collateralized by equity interests. The working group also had substantive discussions on the accounting and reporting of affiliated investments and possible adoption of new guidance on derivatives and hedge effectiveness to more fully integrate the existing U.S. GAAP guidance contained in ASU 2017-12.

- The newly formed RBC Investment Risk and Evaluation Working Group held several meetings this winter to begin its complex project of considering the appropriate RBC treatment for structured securities, and the regulators seem likely to first review collateralized loan obligations. The Life RBC Working Group adopted structural changes to implement revised C-2 mortality risk factors for 2022 RBC filings and exposed the related risk charges for comment. The Catastrophe Risk Subgroup adopted its proposal for an Rcat component to capture wildfire risk, for informational purposes only for year-end 2022, along with an exemption from the modeling requirement for certain smaller companies. The Health RBC Working Group adopted revisions to the "health test" for determining whether certain Life and P/C entities should file the Health annual statement, which is now being considered by the Blanks Working Group.

- The VOS Task Force proposed adding additional market data fields for bonds to Schedule D as part of its project to reconsider the SVO's reliance on credit rating agencies. The task force also exposed for comment expanding the definition of principal protected securities, which do not qualify as filing exempt.

- The Blanks Working Group adopted a proposal that increases the granularity of lines of businesses reported in the Life and Health annual statements but deferred the effective date until year-end 2023. The working group also exposed proposed changes to the AVR factors to be consistent with the 20 NAIC rating designations for bonds adopted for Life RBC in 2021.

- The Financial Stability Task Force and Macroprudential Working Group adopted 1) their regulatory considerations paper related to the ownership of insurers by private equity investors, 2) the regulatory Macroprudential Risk Assessment Process and 3) the Liquidity Stress Test Framework for 2021 filings.

- The Climate Risk Disclosure Workstream adopted revisions to the NAIC's Climate Risk Disclosure Survey to align it more closely with the disclosures promulgated by the FSB's Task Force on Climate-Related Financial Disclosures, effective for 2022 filings.

- The Life Actuarial Task Force continued work on a proposed new actuarial guideline on modeling complex or high-yielding assets as part of asset adequacy testing, with a proposed effective date of year-end 2022. The task force also exposed recommended models for economic scenario generator field testing of treasury, equity and corporate return scenarios, which is scheduled to begin in June.

## *Executive Committee and Plenary*

In addition to Executive Committee and Plenary adoptions discussed in various topics below, the commissioners did the following at the Spring National Meeting:

- Adopted the Long-Term Care Insurance Multistate Rate Review Framework, which the LTC Insurance Task Force considers to be a "cornerstone goal" of the task force. The Framework "outlines a process for a timely, consistent state-based approach to reviewing LTCI rate increase filings." The multistate actuarial (MSA) rate review process is expected to be implemented and operational by September 2022.

- Approved the appointment of Superintendent Elizabeth Dwyer (RI) to the Financial Stability Oversight Council (FSOC) as the non-voting state insurance regulator representative.

## *Special Committee on Race and Insurance*

During the Spring National Meeting, the Special Committee on Race and Insurance, which has been organized into five workstreams, heard updates on the progress of each workstream.

Workstream 1, the diversity and inclusion (D&I) initiatives within the insurance industry and insurance products, previously submitted its initial findings, which are that the industry should do more to improve the level of D&I at all levels of insurance organizations. Most recently the workstream has been closely following the congressional efforts of the U.S. House of Representatives Financial Services Subcommittee on Diversity and Inclusion which will be holding hearings and issuing a report on D&I within the insurance sector.

Workstream 3, D&I related to the P/C industry, is analyzing access and affordability issues include developing analytical tools for state insurance regulators to use in defining, identifying and assessing unfair discrimination. Recently the workstream has been meeting with industry experts on unfair bias in algorithms and other models and discussed the idea of creating a forum to meet with similar experts on this as well as artificial intelligence and machine learning. See the next section below for a further discussion of the new Innovation, Cybersecurity, and Technology Collaboration Forum, on which the special committee participates.

Workstream 4, D&I related to the life industry, is continuing its analysis of access and affordability, focusing on access to life insurance products and the role of financial literacy. The workstream has recently been working with the Financial Alliance for Racial Equity to set up a panel presentation for regulators to discuss strategies for "better meeting the needs of underserved communities." Worksteam 4 has not met yet in 2022 (and didn't hold a public meeting in 2021) but plans to hold public meetings and make progress on their work plan by the Summer National Meeting.

Workstream 5, D&I initiatives related to the health industry, adopted in December 2021 its Principles for Data Collection, which includes recommended standards for data collection for race and ethnicity information, preferred language, sex assigned at birth, gender identity, sexual orientation, and disability. Most recently the workstream has agreed to focus on the following topics in 2022: 1) benefit design, including examining provider network design and benefit structures, and 2) consumer empowerment and engagement. The workstream hopes to meet monthly in open meetings throughout the year to complete its work in this area and is considering the development of a guide as an end product to provide regulators strategies to address these barriers.

## *Group capital calculation*

The GCC Working Group met twice in 2022 to finalize the year-end 2022 GCC template and instructions. Adoption of the final template occurred during their May 2 meeting, which includes the following significant revisions, reflecting feedback from the 2021 trial implementation: 1) elimination of the stress scenario, 2) elimination of the sensitivity test related to "other debt," and 3) "non-risk sensitive foreign jurisdictions" will have a 50% scalar applied (versus the current requirement of 100%). With regard to the elimination of the stress scenario, the chair of the working group noted that the regulators could consider adding new stress scenarios in the future as warranted, which would go through the regular comment period and debate.

The working group did not adopt an industry proposal to allow an increase in the debt allowance by 10% in certain circumstances since the proposal was tied to an external trigger (actions taken by the Federal Reserve Board.) An ACLI-proposed revision to that proposal to allow a three-year withdrawal of a 10% increase in the debt cap was rejected during the working group's May 2 call.

The working group and NAIC staff are working on training for companies on "how to complete" the GCC starting in June, with separate training for regulators on techniques for reviewing GCC filings.

## *Innovation, cybersecurity, technology, and privacy initiatives*

During its Spring National Meeting, the newly renamed Innovation, Cybersecurity and Technology Task Force discussed multiple issues around the accelerating use of technology within the insurance industry, as well as concerns on the use of data related to that technology. In addition to hearing from its working groups, the task force appointed a new working group, the Innovation and Technology Working Group, whose charges include the following: "develop forums, resources, and materials for discussing innovation and technology regarding companies, producers, state insurance regulators, and licensees relevant to the state-based insurance regulatory structure, including new products, services, business models, and distribution mechanisms."

The task force also announced the creation of a new Collaboration Forum that will "serve as a platform for multiple NAIC committees to work together to identify and address foundational issues and develop a common framework that can inform the specific workstreams in each group." The first issue that the Collaboration Forum will discuss is algorithmic bias.

*Cybersecurity Working Group* – During its March meeting, the working group discussed its various charges to support cybersecurity on a state and local level, noting a specific charge to support the states with implementation efforts related to the adoption of Insurance Data Security Model Law (#668). The working group is considering potential projects including developing a cybersecurity response plan to assist state regulators when insurers are hit with cybersecurity events.

*Big Data and AI Working Group* – The working group met in Kansas City and discussed its primary workstreams, most notably the survey work regarding industry's use of artificial intelligence (AI) and machine learning (ML). The regulators heard a summary of the private passenger auto (PPA) company responses regarding the use of AI/ML by the functional areas of claims, fraud detection, marketing, rating, underwriting, and loss prevention. The preliminary analysis reflects that 80% of the 193 companies that responded to the survey are or will be using AI/ML within claims operations; additionally, 60% are or will be using AI/ML within fraud detection; 55% within marketing; 40% within rating; 35% companies within underwriting; and only three companies have AI/ML implemented in production for loss prevention. The preliminary results also reflected that 82% of rate models are developed internally while 18% are developed by a third party. The NAIC will continue to work with state insurance regulators to analyze the results of the PPA AI/ML survey; a goal of this work is to eliminate unintended bias by the use of AI/ML models in general.

The working group's 2022 projects include determining how to implement the NAIC's AI Principles adopted in 2020, which could include the development of an NAIC model.

*Privacy Protections Working Group* – The working group continues to refine its work plan to meet its primary charge by the 2023 Fall National Meeting, which is to "review state insurance privacy protections regarding the collection, data ownership and use rights and disclosure of information gathered in connection with insurance transactions and make recommended changes, as needed, to certain NAIC models, such as the NAIC Insurance Information and Privacy Protection Model Act (#670) and the Privacy of Consumer Financial and Health Information Regulation (#672)."

*Accelerated Underwriting* – In March, the Accelerated Underwriting Working Group of the Life Insurance and Annuities Committee finalized and adopted its Accelerated Underwriting in Life Insurance Educational Report, the goal of which is to "consider the use of external data and data analytics in accelerated life insurance underwriting, including consideration of the ongoing work of the Life Actuarial Task Force on the issue and, if appropriate, draft guidance for the states."

The report was adopted by the Life Insurance and Annuities Committee at its Spring National Meeting. In her comments at the Plenary session, the committee chair noted that the working group will now begin to draft regulatory guidance reflecting the broad recommendations included in the Report.

*NAIC Legislative Update* - The NAIC legislative team provided updates on the status of two recently passed model rule updates related to innovation and technology:

- Insurance Data Security Model Law (#668) - this model has been adopted in 19 jurisdictions and is pending in 6 other states
- Unfair Trade Practices Act (#880) - this update includes revised language specific to rebating. As of the Spring National Meeting, it has been adopted in 2 states and is pending in 7 others

## Statutory Accounting Principles Working Group

Significant actions taken by the SAP Working Group during 2022 are summarized below. (Appendix A to this Newsletter summarizes all actions taken by the working group and the status of all open projects.) Comments on exposed items are due June 3 unless stated otherwise.

### Newly adopted guidance

SSAP 61R, life reinsurance disclosure clarifications (#2021-31) – At the request of AICPA representatives, the working group considered and then adopted changes to revise the requirements for the life reinsurance disclosures that were first made in 2020 financial statements. The clarifications include guidance that 1) if none of the reinsurance disclosures are applicable, an "affirmative statement that no such contracts were identified is acceptable," 2) disclosure of risk limiting features does not apply to stop loss or excess of loss reinsurance agreements with deductibles or loss caps that apply to the entire contract, and 3) only contracts in force at the end of the current calendar year need to be disclosed. The new guidance applies to year-end 2021 financial statements.

***Significant exposures/discussions***

Principles-based bond proposal project (#2019-21) – The SAP Working Group continues to make significant progress on its project to consider what instruments should qualify as Schedule D, Part 1 bonds. During its March 2 conference call, the working group exposed its "official" 32-page Issue Paper for comment until May 6. Conceptual changes to the principles-based bond definition from the Fall National Meeting include the following:

- Deletion of stapling restriction – The original exposure of the principles-based definition included as "Example 1" of Appendix 1 (examples of securities that do not represent creditor relationships) equity interests in a tranche that are required to be held by an investor when holding debt tranches, referred to as "stabled investments," and required classification of both the debt and equity tranches as equity. The revised guidance concludes that tranches which separately qualify as bonds should be reported as bonds even when equity tranches are also held by the insurer. (Example 1 was also eliminated from the Appendix.) The working group now acknowledges that the regulatory concern of insurers owning both debt and equity tranches is an RBC issue versus an accounting issue and may be addressed by the new RBC Investment Risk and Evaluation Working Group during its future deliberations (discussed on page 8 below).

- U.S. Treasury Inflation-Indexed Securities (TIPS) – Proposed guidance has been added to make explicit that U.S. TIPS will continue to be classified and accounted for as bonds.

- "Additional returns" on investments – Guidance has been added to the bond definition (paragraph 3.b) to clarify the consideration of interest in excess of the stated interest. Such structures "must be viewed holistically within the principles-based bond definition, with all potential returns considered in determining whether the structure qualifies as a creditor relationship."

- Hybrid securities – These securities were removed from the listing of "specifically identified bonds" (paragraph 2.k) because all securities with both debt and equity must be analyzed and classified accordingly.

Significant proposed conclusions included in the Issue Paper include the following:

- Although industry requested "loans with recourse" to be added to the bond scope, and an explicit reference to loans as a type of investment captured in the bond definition, the SAP Working Group did not support inclusion. Per paragraph 14, direct loans should not be reflected as bonds if they do not qualify as securities.

- Paragraph 17 states the following: "After determining whether a structure represents a security, the next component for the principle-based bond definition is assessing whether the security represents a creditor relationship…. [I]t is explicit that the assessment of whether a security represents a creditor relationship requires consideration of the substance, rather just the legal form, along with consideration of other investments owned in the investee and other contractual arrangements."

- The Issue Paper guidance would require that for debt instruments that are collateralized by equity interests, many factors should be considered in determining whether such instruments qualify as bonds. These factors include but are not limited to the following: 1) number and diversification of the underlying equity interests, 2) characteristics of the equity interests, 3) liquidity facilities, 4) over-collateralization, 5) waiting period for the distributions and/or paydowns to begin, 6) capitalization of interest, 7) covenants (e.g., loan-to-value trigger provisions), 8) reliance on ongoing sponsor commitments, and 9) sources of expected cash flows to service the debt (i.e., dividend distributions from the underlying collateral vs. sale of the underlying collateral).

- There is no requirement for a collateral asset backing an ABS structure to qualify as an admitted asset under statutory accounting

During the Spring National Meeting, the working group had a brief discussion of the first exposure of the proposed reporting options for Schedule D, with the goal of more granular reporting of bond characteristics. Comments from interested parties included that they do not object to the proposed removal of the six general bond categories, to be replaced with 23 categories of Issuer Credit Obligations and 12 categories of Asset Backed Securities. However, industry did comment that they believe the proposed new sub-schedule D-1 to capture individual investment detail for six categories of "Other Asset Backed Securities" could be confusing, and that instead electronic-only columns could be used to capture the data. The working group responded that electronic-only columns for "key characteristics" of these investments would not provide for enough transparency. The working group directed NAIC staff to work with industry to develop a "more robust illustration" for subsequent exposure during the working group's May 24 interim meeting or at the Summer National Meeting in August. The Issue Paper and revised bond definition are exposed for comment until May 6.

The working group did not discuss any possible revision to the estimate of the "earliest possible effective date" of the package of accounting and report changes, which was previously stated to be January 1, 2024; the current intent is not to allow grandfathering, but some "transition accommodations" may be necessary.

SSAP 25, related party and affiliated investments (#2021-21) – As part of its continuing review of related party investments, at the Fall National Meeting the working group exposed for comment proposed revisions to SSAP 25 to incorporate new reporting requirements for investment transactions with related parties and clarify the reporting of affiliated transactions in the investment schedules through the use of new investment schedule reporting codes. One goal of the proposal is to identify investments that are originated, managed, sponsored or serviced by an affiliate or related party of the insurer.

Industry representatives commented that it is critical to differentiate between investments where there is direct credit exposure to an affiliate and those which are only managed by affiliates with no underlying credit exposure. They also point out that additional investments being classified as affiliated could have an effect on rating agency capital calculations and/or require additional filings with the SVO for an NAIC designation. The working group re-exposed changes to SSAPs 25 and 43R for comment until May 6 to reflect some of industry's feedback. A request from industry to defer the effective date of the accounting and reporting changes from year-end 2022 to no earlier than year-end 2023 was not adopted by the working group; the regulators believe it is crucial to have the revisions in place for year-end 2022. See the Blanks Working Group summary on page 13 for discussion of the related investment schedule revisions (#2021-22BWG).

SSAP 86, effective derivatives and ASU 2017-12 (#2021-20) – At the end of 2018, the SAP Working Group adopted limited guidance from ASU 2017-12, Derivative and Hedging, to simplify hedge accounting in certain scenarios. At the Fall National Meeting, the working group restarted discussion of other concepts in the ASU and whether the NAIC should consider a "fundamental change" to the measurement method of derivatives to be consistent with U.S. GAAP, including expanding the determination of highly effective hedging derivatives. At the Spring National Meeting, the working group discussed comments submitted by interested parties, including industry-proposed edits to SSAP 86, and concluded that "more robust edits are warranted." As a result, NAIC staff drafted a new Exhibit A, Discussion of Hedge Effectiveness, which would replace the current Exhibits A and B, which proposes to adopt the U.S. GAAP guidance more explicitly for assessing hedge effectiveness and includes revisions from ASU 2017-12, but with some modifications. The working group also discussed a related document on the proposed accounting and measurement of excluded components in determining hedge effectiveness, which industry has identified as an area where additional guidance with respect to foreign currency forward points and cross-currency spread basis would be helpful.

The working group exposed both items for comment, noting that there will be a subsequent exposure on partial term hedging; NAIC staff is still reviewing the recent FASB exposure draft on this issue.

SSAP 62R, retroactive reinsurance exception (#2019-49) – The SAP Working Group discussed feedback from the Casualty Actuarial Task Force on possible solutions for more consistent accounting by P/C insurers for retroactive reinsurance contracts that are accounted for as prospective reinsurance when they meet the intercompany reinsurance exemption. The working group asked the task force to take the lead in developing proposed revisions to the Schedule P instructions and possible revisions to SSAP 62R to clarify the accounting for such retroactive reinsurance.

SSAPs 19 & 23, leasehold improvements after lease termination (#2021-25) – At the Fall National Meeting, the working group exposed for comment proposed revisions to SSAP 19 and SSAP 23 to address the accounting for leasehold improvements when a leased property is purchased by lessee during the lease term, which would require immediate expensing of all improvements in any scenario when the lease terminates early. After review of industry comments, the working group directed staff to continue to work with industry on a solution that is not punitive when the leasehold improvements on purchased real estate have a future economic benefit.

Other 2022 projects – The working group noted that they will be resuming discussion of their consideration of ASU 2016-13 (CECL), noting that it will become effective for smaller public companies and non-public companies January 1, 2023. NAIC staff encouraged interested parties to share their experiences of the effect of CECL on their U.S. GAAP financial statements with the staff to help inform the SAP Working Group's project.

## *Risk-based capital*

### Investment risk-based capital

The newly formed Risk-Based Capital Investment Risk and Evaluation (Investment RBC) Working Group was created to perform a "comprehensive review" of the RBC investment framework in light of a significant number of investment-focused proposals from other task forces and working groups. The working group had a joint session in January with the Financial Condition Committee where the committee handed off and provided direction on two projects: 1) consider a second phase of the bond factors for structured securities and other asset-backed securities, including collateralized loan obligations, and 2) consider specific RBC charges for residual tranches that will now be reported on Schedule BA. Following the adoption of new bond factors for the life RBC formula for year-end 2021 and as the industry shifts towards more structured securities, regulators believe that they need to start thinking about the increased tail risk of these investments more explicitly in the RBC formula. During the meeting the working group discussed and exposed a request for comment to solicit feedback on the methodologies for capturing the tail risk and evaluation of residual tranches.

The working group met again in February and March and discussed further its charges and direction, desired outcomes for RBC from SAPWG and VOSTF, and comments received on their request for comment. One recommendation from interested parties was that they should consider forming a working group of regulators, NAIC staff, and industry subject matter experts and several commented that the NAIC should hire a consultant with capital market expertise. The working group discussed these and decided not to form a working group or hire a consultant at this time, as the regulators are still defining the scope of the project. The working group acknowledges this is a complex project and will likely be multi-year and multi-phase.

The working group discussed next steps which include prioritizing the items referred to by the Financial Condition Committee and focusing initially only on the Life RBC formula and not the P/C and Health formulas for the time being. The working group is considering whether to "tackle" collateralized loan obligations first, including whether CLOs can be modeled for RBC purposes, similar to what is currently done for RMBS and CMBS.

**Life RBC**

*C-2 Mortality Risk* – During its March and April meetings, the working group discussed two options for structural updates for more granular product categorizations for C-2 Mortality (LR025). In option 1, the categories would map more closely to the Life annual statement (Analysis of Increase in Reserves During the Year categories) and would include universal life with secondary guarantees, term life, and all other life. In option 2, the categories would be more principle-based, which would require input from company records and include life policies with pricing flexibility (e.g., participating whole life insurance), term life without pricing flexibility (e.g., level term insurance with guaranteed level premiums) and permanent life without pricing flexibility (e.g., universal life with secondary guarantees).

While there was acknowledgement of the advantage of using categories that already exist (option 1), there was also discussion of adding the option 2 data to the annual statement after 2022. Ultimately the working group adopted option 2 with one working group member noting it captures mortality risk more accurately by reflecting premium adjustment capacity. The Capital Adequacy Task Force subsequently adopted these C-2 mortality risk structural changes during their April 28 call. The final categories are the three mentioned above plus group and credit with remaining rate terms 36 months and less, group and credit with remaining rate terms over 36 months and FEGLI/SGLI. These six categories are an expansion over the current two categories of Individual & Industrial and Group & Credit.

During its April 25 call, the Life RBC Working Group exposed for comment until May 25 the related instructional and Academy-proposed factor changes necessary to fully implement the revised morality risk proposal. The factors are tiered into three "buckets" based on reserves held, i.e., higher charges for the first $500 million, and lower charges for the next $24,500 million and over $25,000 million (compared to the current four tiers). Per the Academy, the proposed factors reflect mortality improvement compared to the current RBC mortality factors, which were established in the early 1990s. The intent of the working group to hear comments on the proposal in June with final adoption by the working group and the CADTF prior to the June 30 deadline.

**P/C RBC**

*Catastrophe risk* – After years of studying wildfire risk and various catastrophes models for estimating that risk, the Catastrophe Risk Subgroup adopted this spring its final "informational only" risk charge (2021-17-CR MOD) for wildfire peril for 2022 RBC filings. (The calculated charge will not be part of the "official" RBC ratio for an as yet undetermined period.) A revision adopted April 19 from the previous adopted proposal provides an exemption from wildfire modeling for smaller companies; these companies will disclose their gross and net wildfire 1-in-100-year wildfire losses on a best estimate basis in lieu of model-based reporting, how they estimated the risk and a narrative disclosure as to how they manage their wildfire risk. This exemption only applies during the informational-only phase of the wildfire risk charge. The Capital Adequacy has also adopted the revised proposal during its April 28 meeting.

Modeled losses for wildfire risk include exposures written in California, Idaho, Montana, Oregon, Nevada, Wyoming, Colorado, New Mexico, Washington, Arizona and Utah. Consistent with hurricane and earthquake risk, insurers can qualify for an exemption from completing the charge, e.g., the company has written Insured Value-Property that includes wildfire coverage in the wildfire-prone areas representing less than 10% of policyholders surplus. (This is a separate exemption from the "small company" modeling exemption discussed above.)

The subgroup will be considering adding other perils to the Rcat component of P/C RBC. In January, the subgroup had an extensive discussion of whether to consider flood risk and heard several presenters conclude that private flood insurance is very immaterial to U. S. insurers. During its April 19 meeting the subgroup decided they should consider convective storms next and will arrange for experts to present to the subgroup.

*Other P/C RBC revisions for 2022 filings* – The P/C RBC Working Group also adopted revisions to the P/C RBC formula and instructions (2021-14-P) to remove the embedded 2% operational risk contained in the R3 credit risk component because a standard-alone capital add-on for operational risk was adopted several years ago. This revision eliminates the double-counting effect.

*Affiliated investments instructions and structures exposure* – The working group exposed for comment (until June 25) a proposal to comprehensively revise the RBC formula and instructions for affiliated investments. The proposal includes an expansion of individual affiliate types from 15 to 21 to more closely align with the affiliate types used in the group capital calculation. For example, page PR004, Subsidiary, Controlled and Affiliated Investments would now include "non-insurance entities with a capital requirement imposed by a regulatory body" and "non-insurance other financial entity without regulatory capital requirements." Both of these entities would be assessed a 22.5% RBC charge. The proposed instructions provide additional detailed examples to assist in implementation. The chair noted that the goal of the revisions is to make the treatment of affiliated entities consistent across all three formulas and better align with their treatment in the GCC.

**Health RBC**

*Health Annual Statement Test* – The Health RBC Working Group and its Health Test Ad Hoc Group have been working for several years on solutions to the issue that nearly one-third of health premiums are not captured in the Health annual statement. A 2019 proposal to revise the "health test" to require entities who write predominantly health business and file on the life or P/C blank to begin filing on the Health blank was put on hold as the regulators searched for a less arduous solution. In 2021, the working group exposed for comment a proposal to remove the second part of the test for Life and P/C statement filers, effective year-end 2022, (i.e., the entity is licensed and actively issuing business in five states or less AND at least 75% of the entity's current year premiums are written in its domiciliary state OR the values for the premium and reserve ratios in the Test equal 100% for both the reporting and prior year, regardless of the number of states in which the entity is licensed). This would result in the health test being based on only the following: premium and reserve ratios equaling or exceeding 95% for both the reporting year and the prior year. In 2022, the proposal was revised to clarify the components of the calculation of the health test, with changes in the instructions for the premium numerator and denominator and the reserve numerator and denominator.

During its February 25 meeting, the working group adopted the revised proposal for consideration by the Blanks Working Group, which subsequently exposed proposal 2022-06BWG for comment, with a proposed effective date of year-end 2022. No company will be required to switch from one filing statement basis to another until the first quarter of 2024 since an entity would have to meet the 95% threshold in both 2022 and 2023. (The NAIC does not have an estimate of how many companies might trigger changing annual statement formats in 2024.) The Health RBC Working Group may consider additional changes to the health test in the future, but the regulators want to analyze the results of proposed annual statement changes, the intent of which is to gather additional health data, as discussed in the summary of the Blanks Working Group exposures on page 13 (2021-17BWG and 2021-18BWG).

As part of the discussion of the health test, the working group approved a request to the Health Actuarial Task Force asking them to consider adding guidance to Actuarial Guideline LI—The Application of Asset Adequacy Testing to Long-Term Care Insurance Reserves (AG 51) to state that regardless of the blank an entity files, asset adequacy testing for long-term care business is required if the criteria are met.

*H2—Underwriting Risk Component* –The Health RBC Working Group asked the Academy's Health Solvency Committee to comprehensively review the H2—Underwriting Risk component and the managed care credit calculation in the Health formula to better align the risk factors to economic risk, with a goal of completing the work in time for 2023 RBC filings. During its January meeting, the working group received a report from the Academy outlining six options for revising the H2 risk factors: "1) refresh factors based on updated insurer data; 2) develop factors at a more granular product level; 3) develop factors specific to more relevant block sizes and consider indexing factors for cut points to change over time; 4) model risk factors

over an NAIC-defined prospective time horizon with a defined safety level that can be refreshed regularly; 5) refresh the managed care credit formula and factors to be more relevant and reflective of common contracting approaches and other risk factors associated with these contracting approaches; and 6) analyze long-term care insurance underwriting performance to create a more nuanced set of risk factors that considers pricing changes over time."

The working group is now considering what methodologies should be used to revise the H2 risk factors and will be holding educational sessions prior to requesting that the Academy move forward with the project. The first session was held in April during which representatives of A.M. Best gave a presentation on Best's Capital Adequacy Relativity (BCAR) model.

*Affiliated investments instructions and structures exposure* – The working group is expected to expose during its May 4 meeting proposed revisions to Health RBC to comprehensively revise the RBC formula and instructions for affiliated investments, consistent with the proposal made by the P/C RBC Working Group discussed above on page 10.

## Market-based affiliated service agreements

As a result of an increase in the number of affiliated service agreements being filed for regulatory review with "complex, market-based expense allocations," the Risk-Focused Surveillance Working Group exposed for comment in 2021 proposed revisions to the Financial Analysis Handbook and Financial Examiners Handbook. The revisions would provide guidance to regulators in their review of such market-based expense allocations as to whether they meet the "fair and reasonable" standard of holding company requirements. During its meeting in late 2021, the working group heard comments from industry indicating significant concerns that the proposed guidance could result in previously approved service agreements being disapproved. A working group member noted that their state cannot revoke previously approved Form Ds for affiliated agreements. The working group formed a joint regulator-interested party drafting group to update the Handbook guidance and they hope to have a draft ready for exposure at the Summer National Meeting.

## Valuation of Securities Task Force

The task force discussed the following significant projects and issues.

*Rating issues and proposed changes to the Filing Exemption process* - Last fall the task force discussed a memo from the SVO staff on concerns around private securities and the reliance on CRP ratings. These securities are not broadly syndicated and are usually privately rated by only one credit rating provider. The memo recommends that the task force consider several alternatives to address this issue. The VOS Task Force formed a small study group to coordinate this effort and met for the first time this spring in March to discuss its objectives which include the following:

- Establish a framework of qualitative and quantitative criteria for being a CRP to the NAIC
- Eliminate/minimize RBC arbitrage opportunities between CRP ratings and asset classes
- Define a repeatable quantitative process to evaluate rating performance for all rating agencies
- Incorporate market data to help identify potential misalignments of risk

During the Spring National Meeting, to address the fourth objective above, the task force exposed for comment a possible referral to the Blanks Working Group to add fixed income analytical risk measures for investments reported on Schedule D, Part 1. The proposal would require the addition of new market data fields including market yield, market price, purchase yield, weighted average life, option adjusted spread, effective duration and convexity, which are intended to help the SVO identify "market perceived risk inconsistent with the assigned rating" and which could ultimately be used by the SVO to develop their own analytical processes to assess investment risk as a supplement or an alternative to CRP ratings. The task force is suggesting a proposed effective date of year-end 2023. There was no discussion at the meeting of the

potential cost to industry to obtain and report this additional information as part of Schedule D. Comments on the proposal are due by May 20.

*Principal protected securities (PPS)* - Previously the task force adopted a significant amendment to revise the definition of PPS and remove this class of security from eligibility for filing exemption. The regulatory concern is that these instruments may have other than non-payment risk and the debt rating of the PPS "obscure the overall risk" of the performance assets. The amendment was effective January 1, 2021.

In 2021, the SVO discussed a proposal to expand the definition for a security type which poses the same risks as a PPS but is not issued by an SPV holding both the underlying bonds and the performance assets, referred to as a synthetic PPS. The security is an issuer obligation of a financial institution whose obligation it is to pay principal at maturity and a premium based on the performance of referenced assets or referenced index. VOSTF exposed a revised definition that would also include issuer obligations. At the Spring National Meeting, the task force was directed to continue to work with industry who requested that the wording be "thoroughly discussed" to ensure there are no unintended consequences and then re-expose for an abbreviated comment period.

*Schedule BA assets with underlying characteristics of a bond or other fixed income instrument* – During the fall, the task force exposed for comment amendments to Part 3 of the P&P Manual to permit the SVO to assign NAIC Designations to Schedule BA assets with underlying characteristics of a bond or other fixed income instruments that are not covered by other sections of the P&P Manual. This would make several types of assets eligible for an NAIC Designation that currently are not eligible, which would result in a more favorable RBC treatment. Industry supports this project and noted the interaction with SAPWG's bond project where certain such assets may move to Schedule BA. The amendment also includes a required documentation section which is expected to be "very similar" to the requirements for a Schedule D asset. During the Spring National Meeting, the task force directed work to continue with industry on the project.

*Working Capital Finance Investments* (WCFI) – The task force adopted an amendment for an unrated, non-guaranteed subsidiary obligor of the WCFI program to be assigned an NAIC designation based on implied support from its parent and rely upon a parent entity's rating. The exposure also authorizes the SVO, "based on its analytical judgment and in its sole discretion," to notch the NAIC Designation down based on certain factors.

*Infrastructure gap presentation* – In a special session in Kansas City, the NAIC's Center for Insurance Policy and Research, together with NAIC's Capital Market's Bureau gave a presentation entitled "Can Insurance Company Investments Fill the Instructure Gap," which summarized their research report of the same name published in September of 2021. The goal of the report is to "establish a baseline understanding of infrastructure investment by the insurance industry (size, performance, etc.) and to subsequently investigate the industry's potential for closing the infrastructure gap," which is estimated to be a $2.6 trillion funding gap. A significant impediment to additional insurer investment is the related RBC requirement for infrastructure investments, and a goal of the presentation in Kansas City was to "kickoff the initiative to rightsize RBC."

ACLI representatives spoke as to why now might be an ideal time to start a project to revise RBC because of the recent adoption of the 2021 Bipartisan Infrastructure Deal, Europe is current working to reform its regulatory capital for infrastructure investments, and the possible flexibility as a result of the 2021 adoption of the NAIC's bond project for RBC, which created 20 rating classes for bonds.

## *Blanks Working Group*

The working group met in April and took the following significant actions. All adopted revisions and exposed proposals are shown on the Blanks Working Group webpage.

**Adopted proposals**

- Adopted a proposal to add a footnote to Exhibit 7 in the Life annual statement to capture the amount of Federal Home Loan Bank Funding Agreements by classification type, (e.g., year-end balance reported as GICs, annuities certain, supplemental contracts, dividend accumulations or contracts, premium or other deposit funds or deposit-type contracts), effective for year-end 2022. (2021-15BWG)
- Adopted a proposal to add instructions to the Investment Schedules General Instructions to exclude residual tranches or interests from being reported as bonds on Schedule D, Part 1 and add lines to Schedule BA for the reporting of those investments (2021-21BWG). The working group also adopted a related proposal to add lines for residual tranches in the AVR Equity and Other Invested Asset Component schedules (2021-23BWG). Both proposals are effective for year-end 2022.
- Adopted a proposal to modify the Analysis of Operations by Lines of Business in the Health Annual Statement to include all health lines of business included in the Life Analysis of Operations by Lines of Business - A&H (which includes adding separate columns for Individual and Group Comprehensive Hospital and Medical, credit A&H, disability income, and long-term care). The revisions will also add the Analysis of Operations by Lines of Business as a supplement to the Life Annual Statement to allow regulators to look at the same level of detail as reported on the Health Annual Statement. Due to the software modifications that insurers will need to make to capture the new data, the implementation date was extended from year-end 2022 to year-end 2023. (2021-17BWG Modified)

**Other actions on previously exposed items**

- Withdrew a proposal (2021-13BWG) to add a new supplement to the P/C Annual Statement to capture 9 columns of premium and loss data for the "Other Liability" lines of business (Lines 17.1-17.3) of the Exhibit of Premiums and Losses to expand them into more granular classifications. In substitute, the task force exposed a new proposal that has 10 pre-populated lines of business including an aggregate write-in for Facilities & Premises (Commercial General Liability (CGL)) and an aggregate write-in for "other" along with instructions and examples. For the aggregate write-in for CGL, each of 12 categories that are 10% or greater of the total CGL line are required to be reported separately and for the aggregate write-in for "other," each line of business that is 10% or greater of the total "other" line is required to be reported separately. The proposed effective date is year-end 2023. (2022-04BWG)
- At the request of industry, the working group deferred a proposal for additional discussion to modify the Life Insurance (State Page) to include the line of business detail reported on the Analysis of Operations by Lines of Business pages to make the lines of business reported on the Life Insurance (State Page) consistent with the lines of business being reported on the Analysis of Operations by Lines of Business pages. Life and health insurers had asked for a deferral to "allow industry, state regulators, and NAIC staff additional time to evaluate the regulatory need and potential impacts from the significant proposed changes." (2021-18BWG Modified)
- Re-exposed a proposal to add new electronic columns to capture investments issued by a related party or through a related party transaction, regardless as to whether the related party meets the definition of an affiliate or there is a disclaimer of affiliation or control. The proposal also includes information involving securitizations where the related party is a sponsor or originator and whether the underlying investment is in a related party. Additional modifications were exposed which include adding the phrase "vehicles such as mutual funds, LP, and LLCs" as examples of securitization vehicles. The proposed effective date is for year-end 2022. See discussion in the SAP

Working Group summary above for additional discussion. (2021-22BWG Modified & SAPWG #2021-21)

The working group also exposed for comment the following significant new proposals:

- Add six new questions in the general interrogatories for companies directly owning cryptocurrencies or accepting cryptocurrency for payment of premiums; the proposed effective date is for year-end 2022. (2022-01 BWG and SAPWG #2021-24)

- Revise the Health Annual Statement Test language (2022-06BWG). See further discussion of this proposal in the Health RBC Working Group summary.

- Modify the instructions of the Health Annual Statement Actuarial Opinion to ensure that the actuary's opinion covers actuarial assets as well as actuarial liabilities and that the instructions provide guidance to appointed actuaries on actuarial assets. (2022-07 BWG)

- Add instructions to the Health, P/C, and Life Annual Statements Schedule T, State pages and Accident and Health Policy Experience Exhibit to allocate premium adjustments, including Affordable Care Act premium adjustments, by jurisdiction. (2022-10 BWG & SAPWG Ref #2022-03)

- Update the AVR factors to be consistent with Life RBC factors adopted in 2021 for the expanded bond designation categories. (2022-11 BWG)

## *Financial Stability Task Force and Macroprudential Working Group*

*Private equity considerations* – This fall, the Macroprudential Working Group exposed for comment a two-page paper entitled "Regulatory Considerations Applicable (But Not Exclusive) to Private Equity Owned Insurers." The paper identifies 13 types of risks, such as companies structuring agreements to avoid regulatory disclosures or requirements and operational, governance and market conduct practices that are influenced by different priorities and level of insurance industry expertise. This Regulatory Considerations paper was adopted by both the working group and the task force in February, and the next phase of the project has begun, which is the exposure of proposed examples of regulatory actions (taken from PE-related guidance in the NAIC Financial Analysis Handbook) that could be taken to address solvency issues, if warranted. The exposure document also includes documentation of "regulatory responses" to the 13 types of risk listed; for example, for the risk of undisclosed agreements, the regulatory response includes a referral to the Group Solvency Issues Working Group with a suggestion that instead of requiring that all Form A acquisitions provide additional disclosures, guidance could be developed to structure an optional disclosure requirement that can be used when unresolved regulatory concerns exist with an acquisition. Comments on the Regulatory Responses paper will be discussed at the working group's next meeting.

*Macroprudential Risk Assessment Process* – The task force and working group adopted during their joint meeting in Kansas City their final Macroprudential Risk Assessment Process document, which has a key objective to "identify and assess industry-wide insurance risks." The guidance includes both qualitative and quantitative assessment factors to reach baseline assessments of industry exposure to various macroprudential risks. The four assessment levels are High, Moderate-high, Moderate-low or Low. The final "glossy report" is expected to be posted to the Macroprudential Working Group's webpage no later than the week of May 9.

*Liquidity Stress Test Framework* – The Financial Stability Task Force adopted its Liquidity Stress Test Framework for 2021 filings, LST Framework with Lead State Guidance, the goal of which is to allow regulators to "identify amounts of asset sales by insurers that could impact the markets under stressed environments," which is a life insurance-specific framework. Changes from the guidance for filing for 2020 were not substantive and were not exposed for comment. Filings for the 23 companies triggering the analysis are due June 30.

## *Climate risk*

*Climate Disclosure Workstream* – The Climate Resiliency Task Force received a report from its Climate Risk Disclosure Workstream on the status of the NAIC's Climate Risk Disclosure Survey, which has been redesigned to align to the recommendations of the Financial Stability Board's (FSB's) Task Force on Climate-Related Financial Disclosure (TCFD) and include insurance-specific questions. The Disclosure Workstream met its goal of adopting a revised survey for 2022 reporting, which was also adopted by the task force.

The adopted survey revised utilizes the TCFD framework, which is structured around four thematic areas that are core elements for how insurers operate—governance, strategy, risk management, and metrics and targets and includes the TCFD guidance on materiality, use of "best efforts," and confidentiality, i.e., confidential information should not be included as the survey is a public disclosure document. The revised survey moves from the prior 8 questions to narrative-based questions and there are no longer multiple-choice questions. The "yes or no" questions have been made voluntary, and the bulleted questions under the TCFD statements were made into guidance as to how insurers would address the TCFD statements, not separate questions an insurer must answer. The assumption is that every company completing the survey in 2022 will have already completed the existing NAIC survey or filed a TCFD report, as nearly all companies have participated for several prior years. (Companies that have already completed a 2022 TCFD are permitted to submit that as their NAIC survey for this year). The reporting threshold for insurers would remain the same at $100 million in countrywide direct premium written and licensed in any one of the 15 participating states. (It is voluntary for states to participate, but not for insurers exceeding the $100 premium threshold.) If there are any new insurers who recently crossed the reporting threshold, their deadline is August 30, 2023; the deadline for entities previously filing the survey is November 30. Additionally, states can use their discretion to offer extensions to companies.

Prior to adoption by the NAIC Survey, the Disclosure Workstream discussed that the U.S. Securities and Exchange Commission had just released for comment proposed rule changes that would require SEC registrants to include certain climate-related disclosures in their registration statements and periodic reports, including information about climate-related risks that are reasonably likely to have a material impact on their business. (Similar to the NAIC Climate Risk Disclosure Survey, the SEC proposal is based on questions from the TCFD.) The leadership of the Climate Task Force and Workstream have reviewed the SEC proposal and compared it to the NAIC's survey. It was determined that given the timing – the SEC final ruling won't likely be finalized until the end of 2022 – and given that both disclosures are based on the TCFD, the 15 participating states should not delay the transition to the new NAIC survey. One unique aspect to the SEC proposal would be the addition of the calculation of positive and negative climate change risk impacts to the financial statements. At this time, the task force does not intend to consider adding these detailed disclosures to the NAIC Survey.

*Solvency Workstream* – The Solvency Workstream held a meeting in March, where they released for comment draft referral letters to the Financial Examiners Handbook Technical Group and the Own Risk and Solvency Assessment (ORSA) Implementation Subgroup to gather thoughts from regulators and interested parties regarding potential updates on financial solvency tools related to climate risk. For example, the ORSA Subgroup would be asked to consider whether the ORSA Guidance Manual should be modified to indicate that the insurer includes a description and explanation of what climate change risk means for the insurer, how its materiality is assessed, and how this risk is addressed through the risk management framework. Similar requests are being suggested for the Examiners Handbook, e.g., "consider updating the information requested at the onset of an exam to gain an understanding of the insurer's exposure to and management of climate change risks." The Solvency Workstream will hold a public meeting following the comment deadline to consider the comments received and finalize the referral letters.

*Catastrophe Modeling Center of Excellence* – The task force had previously adopted a proposal to create a Catastrophe Modeling COE at the NAIC, which is intended to help facilitate access to CAT modeling knowledge and expertise for insurance regulators. During the Spring National Meeting, the Executive Committee adopted the Catastrophe Modeling Center of Excellence within the NAIC's Center for Insurance

Policy and Research. The COE will have three specific services: 1) facilitate insurance department access to and assistance in understanding catastrophe modeling, 2) provide general technical training on the mechanics of CAT models and potential risks, and 3) conduct research analysis to proactively answer regulatory questions to inform regulatory resilience priorities.

## *Restructuring Mechanisms Working Group*

For several years, the Restructuring Mechanisms Working Group has been working to develop a white paper to summarize the various industry wide processes for insurance companies to restructure liabilities with finality, primarily through the use of two types of transactions: insurance business transfer (IBT) and corporate division (CD). The working group met in March and agreed to expose a list of previously received comments with a request that parties develop specific language that could be added to the white paper to address the comments. (While the working group did discuss certain specific edits, the white paper itself is not being re-exposed at this time, i.e., only the interested party comments' list to consider suggestive edits.)

The comments from multiple stakeholders - including industry groups, regulators, professional services firms, and insurance companies - focused on the following main themes, and included certain preliminary suggested edits to the white paper as follows:

- Best practices - the white paper should be very specific as to what are the best practices and consistent standards of review, including guidelines that are specific to IBT and CD transactions. The working group has not yet proposed suggested edits but plans to further review.

- LTC insurance - comment letters suggested language should be added to clarify that long-term care insurance is not eligible for division or transfer. The white paper is currently silent on LTC.

- Consumer protection/guaranty fund coverage - additional language was added related to the availability of guaranty association coverage in the event of the insolvency of the restructured insurer. As restructuring should not adversely affect consumers, updates are in progress to ensure that guaranty association coverage is not reduced or eliminated or otherwise changed by the restructuring.

The working group also adopted a referral to the Receivership and Insolvency Task Force to consider an amendment to the Property and Casualty Insurance Guaranty Association Model Act (#540) to address the issue of guaranty fund coverage in the event of the insolvency of the insurer who has assumed the restructured policies.

The Restructuring Mechanisms Subgroup is meeting on May 4 to review for possible exposure its draft documents Foundational Principles and Best Practices Procedures for IBT/ Corporate Divisions for regulator review of proposed restructuring transactions. The subgroup will also consider several proposed options for modifying the P/C RBC formula for "runoff companies."

## *Reinsurance Task Force*

During the Spring National Meeting the Reinsurance Task Force exposed the revised *Uniform Checklist for Reciprocal Jurisdiction Reinsurers,* which assists states in the review of certified reinsurers for passporting purposes. The proposed changes would add guidance on the calculation related to the prompt payment of claims and that NAIC staff should review the Schedule S and Schedule F of U.S. domiciled ceding companies as part of the passporting approval process.

The task force reported that they will perform a review by the end of 2022 to re-approve the status of Bermuda, France, Germany, Ireland, Japan, Switzerland, and the UK as qualified jurisdictions and Bermuda, Japan, and Switzerland as reciprocal jurisdictions.

There has also been progress in adoption of the revised Credit for Reinsurance Model Law and Regulation; as of March 31, 48 jurisdictions have adopted model law, with only DC, Hawaii and Wisconsin and the 5 U.S territories pending, and 34 states have adopted the revised Model Regulation with 11 states and territories pending. The goal of the NAIC is to have all jurisdictions adopting both the law and regulation by July 1, 2022, ahead of the required date under the Covered Agreement of September 1, 2022.

## *Principles-based reserving*

Valuation Manual amendments

During LATF calls between the 2021 Fall National Meeting and the 2022 Spring National Meeting several amendment proposal forms (APFs) and related guidance were discussed, exposed and/or adopted as follows:

***Adopted guidance***

APF 2021-11 introduces a new section in VM-21 to provide general guidance and requirements to address assumption reporting issues identified in VM-21 PBR report reviews, and new sections in VM-31 that address sensitivity testing and margin analysis to help regulators better understand how companies comply with the newly added assumption guidance and requirements.

APF 2022-01 clarifies in VM-20 Section 8.C.18 that with respect to non-guaranteed yearly renewable term (YRT) business the same treatment that applies to the reinsurer also applies to the retrocessionaire.

APF 2022-02 clarifies language in VM-31 Section 3.F.9.h.ii regarding documentation of results relative to implied volatility scenarios. The changes parallel the language in VM-21 that the VM-31 reporting item is intended to verify.

APF 2022-03 updates cross references in VM-21 and clarifies language in VM-21 for consistency with applicable language in VM-20 and incorporates clarifying edits to language in VM-20, VM-21 and VM-31.

***Exposed guidance***

APF 2020-12 proposed changes would create consistency between clearly defined hedging strategy (CDHS) requirements in VM-20 and VM-21 and would require modeling all of a company's future hedging strategies but reflect the additional error (VM-21 E-factor) or residual risk (VM-20) when a future hedging strategy is not clearly defined. The concept of a "future hedging strategy" replaces that of a "seasoned hedging strategy" that appeared in earlier drafts of the proposal. LATF members discussed the comments and revised and re-exposed the APF.

APF 2022-04 proposed changes to VM-20 would prescribe swap spreads guidance in light of the transition of LIBOR to the Secured Overnight Financing Rate (SOFR) in January 2022. The proposal identifies 2022 as a transition year and prescribes the NAIC's procedure to calculate current and long-term benchmark swap spreads for valuation dates on or before December 2021, during 2022, and 2023 and later. The exposure seeks comments on the APF as well as feedback on questions related to timing of the NAIC publication of SOFR swap spreads, number of spread adjustment parameters to use, and whether payment frequency and day count enhancements should be considered to improve accuracy.

***Other VM Project Updates***

VM-22 - PBR for fixed annuities

LATF heard an update from the VM-22 Subgroup on activities related to fixed annuity PBR. The subgroup has not met formally since July 2021 while awaiting comments on the exposure of the initial draft of NAIC Valuation Manual Section II and VM-22 requirements associated with the Academy proposed framework, "Preliminary Framework Elements for Fixed Annuity PBR." However, the subgroup continues to receive comments on the VM-22 exposure, and close to 400 of these comments have been reflected in the latest draft, which has been posted to the VM-22 Subgroup webpage.

Comments have been divided into four tiers ranging from foundational and critical issues to editorial or non-substantive comments. Subgroup discussion of the comments will focus initially on first tier issues and progress through the other categories.

Timing of the VM-22 field test is now targeted for Fall 2022 and implementation of VM-22 remains targeted for January 1, 2024. Revised timing was not discussed; however, the VM-22 field test will likely be delayed because it depends on the timing of the ESG field test, which is discussed in the Life Actuarial Task Force summary below.

## *Life Actuarial Task Force*

### *Actuarial Guidelines*

Actuarial Guideline on AAT - In December 2021 LATF members discussed and exposed concept documents addressing the potential need for additional guidance for modeling complex assets in asset adequacy testing (AAT). Discussions leading up to the concept exposure indicated industry representatives are largely supportive of the need for additional guidance, and LATF member discussions focused on pros and cons of establishing modeling constraints or requiring increased documentation and sensitivity testing (i.e., disclosures) and the potential effective date. In February LATF members voted unanimously to expose a proposed AAT Actuarial Guideline, and in April following LATF member discussion during the Spring National Meeting, a revised draft Actuarial Guideline AAT was exposed for comment until May 2.

As currently drafted, the guideline would be applicable to life insurers with over $5 billion of general account reserves, or over $500 million of general account reserves and over 5% of assets selected for adequacy analysis categorized as "projected high net yield assets." These assets are defined in the guideline as those where future net yields are higher than the "investment grade net yield benchmark" (also defined in the guideline). Key elements of the guideline include required documentation of net return and risk, considerations around model rigor, fair value determination, valuation of privately originated assets, and sensitivity testing and attribution analysis.

Discussion of the draft guideline during the LATF call on March 31 focused on three main topics:

- Guardrails on assumed net yields - lively debate among LATF members on this topic culminated in consensus at this time to not implement guardrails on assumed net yields and instead rely on sensitivity tests to indicate potential risks associated with yields on complex assets. LATF members did not rule out the potential for guardrails to be established in the future after further consideration of an appropriate framework and anticipated impacts.

- Reinsurance - consensus among LATF members was to rely on the recently updated ASOP 11 to ensure appropriate analysis and disclosure in the actuarial memorandum of considerations regarding reserve adequacy associated with reinsured business, in particular collectability and counterparty risk

- Scope of asset return documentation - LATF members generally agreed the proposed scope of net risk and return documentation should be limited to projected high net yield assets, to appropriately target assets that are more complex in nature and not less complex assets that may slip below investment grade.

Pending discussion of comments received on the second exposure draft, the task force envisions a third exposure in May, targeting adoption in June. The plan is for the guideline to be effective for reserves reported in the December 31, 2022 and subsequent annual statutory financial statements.

### *Other LATF Activity*

ESG implementation project
Following the Fall National Meeting LATF members received updates from the ESG Drafting Group on ESG model development and model office results and in March LATF members exposed recommended models for ESG field testing of treasury, equity and corporate return scenarios.

Model office testing of the exposed ESG models was performed for a universal life product with secondary guarantees and a variable annuity with a guaranteed lifetime withdrawal benefit and a guaranteed death benefit. This testing was done to provide limited data points to assess the impact of selected economic scenario sets on statutory reserves and capital. The impact to reserves is expected to be large under any of the Conning scenario sets considered due to the new "low-for-long" requirements which are not present in the current Academy Interest Rate Generator (AIRG), and the equity-treasury linkage (based on the short Overnight Rates) and low interest rate environment. The ESG field test is intended to test the impact of the new ESG models more thoroughly on reserves for a variety of products and business distributions. The field test will begin in June and run to September; results are expected to be presented to the public by November.

During the LATF call on March 31 the ESG Drafting Group reviewed the exposed models and discussed differences between the Conning GEMS model and the Academy AIRG equity models. Key drivers of the differences are inclusion in the GEMS model of other domestic and international equity funds and higher volatility that results in a wider distribution of cumulative equity returns or wealth ratios in both tails of the scenario distribution.

To conclude discussion on this topic the LATF chair briefly addressed the timeline, noting that the new ESG implementation remains targeted for adoption for the 2024 VM, but the timeline is highly dependent on completion of the ESG field test.

Index-Linked VA Subgroup
The Index-Linked Variable Annuity (ILVA) subgroup reviewed comments from its exposure draft of the proposed ILVA Actuarial Guideline, which focuses on the changes to nonforfeiture, or interim value requirements related to index-linked variable annuities. The purpose of this guideline is to clarify the application of the Standard Nonforfeiture Law for Individual Deferred Annuities (#805) and the Variable Annuity Model Regulation (#250) to ILVA products. Many issuers of ILVA products believe they are exempt from Model #805 since the products are registered with the SEC as variable annuities. On the other hand, ILVA products are not unit-linked, which leads to the question of applicability of Model #250.

A total of seven comment letters from the Academy, ACLI and three insurers were received by the subgroup. The comments expressed concerns that the proposed guideline is prescriptive in nature rather than principle-based, and the potential disruption to the product design in the marketplace. Three conference calls were held to discuss the comment letters and examples of how companies may apply the guideline methodology to demonstrate that the interim values are variable enough to exempt the product from application of Model #805.

Following the discussions, the subgroup revised the proposed guideline and exposed the revised draft for comment until May 2. The revised draft allows for the interim value to be determined by a company's chosen alternative methodology as long as the company demonstrates that the interim value is materially consistent with the interim values that would be produced using the approach described in the guideline.

IUL Illustration Subgroup
The Indexed Universal Life Illustration Subgroup met in February to discuss comments received on the IUL Exposure seeking input on whether and how to address insurers' current or potential planned use of uncapped volatility-controlled indices to support product illustrations that are more favorable than those for traditional IUL products with capped indices. This practice emerges following implementation of

*Actuarial Guideline XLIX-A—The Application of the Life Illustrations Model Regulation to Policies With Index-Based Interest Sold On or After December 14, 2020* (AG 49-A), which a survey of insurance regulators indicates has been effective in addressing previous product design issues leading to the development and implementation of AG 49-A.

Comments were received from several insurers, the ACLI, the Coalition of Concerned Insurance Professionals, the Academy and the Center for Economic Justice. The comments indicate general recognition of challenges or issues associated with IUL product illustrations and offer a variety of solutions. The subgroup plans to continue discussion of the comments and will revise the exposure accordingly, as well as discuss recommending to parent groups a broader study of illustration issues.

## International Insurance Relations Committee

*IAIS update* – The International Association of Insurance Supervisors launched their Global Monitoring Exercise on March 10, which includes individual insurer monitoring and sector-wide monitoring, with additional climate data and new data on cyber being collected. Work on potential revisions to the individual systemic risk assessment methodology will be done in 2022 as part of a three-year cycle review, which is similar to the global systemically important insurer (G-SII) identification process that was replaced with the IAIS Holistic Framework for systemic risk. Implementation of the Framework is currently being reviewed by the IAIS, and the Financial Stability Board will decide by the end of 2022 whether to eliminate the G-SII identification process permanently or restart the process.

Work continues on assessing the Aggregation Method (AM) and data for the monitoring period is being collected now to develop draft criteria for assessing comparability of the AM developed by the U.S. to the Insurance Capital Standard. The planned public consultation on draft comparability criteria will be in the first half of 2022.

The IAIS's Public Consultation on the Development of Liquidity Metrics: Phase 2, which will serve as a tool to facilitate the IAIS' monitoring of the global insurance industry's liquidity risk, has now ended and the IAIS is currently in the process of reviewing comments.

The 2022 Summer National Meeting of the NAIC is scheduled for August 9-13 in Portland, Oregon. We welcome your comments regarding issues raised in this newsletter. Please provide your comments or email address changes to your PwC LLP engagement team, or directly to the NAIC Meeting Notes' new editor, Jen Abruzzi, at jennifer.abruzzi@pwc.com. **Newsletter Disclaimer.** Since a variety of viewpoints and issues are discussed at task force and committee meetings taking place at the NAIC meetings, and because not all task forces and committees provide copies of meeting materials to industry observers at the meetings, it can be often difficult to characterize all of the conclusions reached. The items included in this Newsletter may differ from the formal task force or committee meeting minutes.

In addition, the NAIC operates through a hierarchy of subcommittees, task forces and committees. Decisions of a task force may be modified or overturned at a later meeting of the appropriate higher-level committee. Although we make every effort to accurately report the results of meetings we observe and to follow issues through to their conclusion at senior committee level, no assurance can be given that the items reported on in this Newsletter represent the ultimate decisions of the NAIC. Final actions of the NAIC are taken only by the entire membership of the NAIC meeting in Plenary session

# Appendix A

This table summarizes actions taken by the SAP Working Group since December 2021 on open agenda items. For full proposals exposed, see the SAP Working Group webpage.

| Issue/ Reference # | Status | Action Taken/Discussion | Proposed Effective Date |
|---|---|---|---|
| | | | |
| SSAPs 68 & 97 – Goodwill (#2019-12 and #2019-14) | Discussion to restart in 2022 | No discussion at the Spring National Meeting. | TBD |
| Principles-based bond proposal project – (#2019-21) | Exposed an Issue Paper and a revised bond definition | The working group exposed an Issue Paper and a significantly revised proposed principles-based bond definition. See further discussion in the SAPWG summary above. | TBD |
| SSAP 62R – Retroactive Reinsurance Exception (#2019-49) | Revised referral to CASTF | The SAP Working Group asked the Casualty Actuarial Task Force to take the lead in proposing changes to Schedule P. See discussion on page 8 for additional detail. | TBD |
| SSAP 108 – VM-21 Scenario Consistency Update (#2021-18) | Adopted | Revisions to SSAP 108 were adopted during the working group's January 2022 meeting to replace the term "VM-21 Standard Scenario" with "VM-21 Standard Projection" and add a footnote defining the Standard Projection. | December 31, 2021 |
| SSAP 86 – Effective Derivatives, ASU 2017-12 (#2021-20) | Exposed | See discussion of broad reconsideration of ASU 2017-12 by the working group in the SAPWG summary above. | TBD |
| SSAP 25/43R – Related Party Reporting (#2021-21) | Re-exposed | The working group re-exposed its proposal to clarify the reporting of related party investments to reflect industry comments. See SAPWG discussion above. | December 31, 2022 |
| Schedule D-6-1 – Supplemental SCA Reporting (#2021-22) | Referred to the Blanks Working Group | According to NAIC staff analysis, the carrying value of investments in insurer SCAs per Schedule D, Part 6, often varies from values reported in the respective audited financial statements. To address this issue, SAPWG suggested additional information be added to Part 6. See the Blanks Working Group discussion above. | December 31, 2022 |
| SSAP 43R – Updated Financial Modeling Guidance (#2021-23) | Adopted | The working group adopted "option 1" for revised guidance for SSAP 43R, which retains summarized financial modeling guidance for RMBS and CMBS. | April 4, 2022 |
| Cryptocurrency General Interrogatory (#2021-24) | Adopted and referred | The working group adopted a proposal to recommend a new general interrogatory to all annual statements, requiring additional disclosure of the use of cryptocurrencies. See the Blanks Working Group above for further detail. | December 31, 2022 annual statements |

| SSAPs 19 and 73 – Leasehold Improvements after Lease Termination (#2021-25) | Re-expose at a later date | The SAP Working Group directed NAIC staff to work with industry on further revisions to this proposal. See the SAPWG discussion above. | TBD |
|---|---|---|---|
| Editorial Updates (Substantive vs Nonsubstantive) (2021-26EP) | Adopted | To implement the SAPWG's new policy on replacing the terms "substantive and "nonsubstantive," with "new SAP concepts" and "SAP clarifications," respectively, the working group adopted proposed revisions to relevant policy sections of the APP Manual. | April 4, 2022 |
| Rejection of new GAAP literature (#2021-27 through #2021-30) | Adopted | As part of its SAP maintenance process, the working group considered and adopted rejection of the following newly issued U.S. GAAP guidance as not applicable to statutory accounting: ASU 2021-04, Issuer's Accounting for Certain Modifications; ASU 2021-3, Intangibles – Goodwill and Other; ASU 2021-05 – Variable Lease Payments; and ASU 2021-06 – Amendments to SEC Paragraphs. | April 4, 2022 |
| SSAP 61R – Life Reinsurance Disclosure Revisions (#2021-31) | Adopted | The regulators adopted re-exposed clarifications to the supplemental schedule of life and health reinsurance disclosures for year-end 2021. See the SAPWG summary above for additional discussion. | December 31, 2021 |
| Conceptual Framework – Updates (#2022-01) | Exposed | The working group exposed for comment proposed changes to the APP Manual Preamble and SSAPs 4 and 5R to incorporate recent changes to the FASB's Conceptual Framework for Financial Reporting. | TBD |
| SSAP 48 – Alternative Valuation of Minority Ownership Interests (#2022-02) | Exposed | The regulators exposed for comment two options for proposed changes to SSAP 48 to address the use of audited tax basis equity as a valuation basis for investments in LPs, JVs and LLCs: 1) eliminate the tax valuation basis going forward as it appears to be little used, or 2) continue to allow audited tax basis equity but with the clarification that the audit must reside at the investee level. | TBD |
| Premium Adjustments Allocated to Jurisdictions (#2202-03) | Exposed | This agenda item proposes annual statement changes (Schedule T, the State Page and the A&H Policy Experience Exhibit) to clarify reporting for health premium adjustments. The instructions would clarify that all premium adjustments, including those related to federal Affordable Care Act, should be allocated to appropriate jurisdiction. | TBD |

| SSAP 24 – ASU 2021-10 – Government Assistance (#2022-04) | Exposed | The working group exposed for comment proposed revisions to SSAP 24, Discontinued Operations and Unusual or Infrequent Items, to incorporate most of the disclosures from ASU 2021-10 on disclosures by business entities about government assistance which are not covered in scope by other accounting standards. For example, loans from the Paycheck Protection Program are not in scope. | TBD |
|---|---|---|---|
| SSAP 22R – ASU 2021-09 – Leases (#2022 -05) | Exposed | The working group is proposing rejection of this guidance as almost all leases are classified as operating leases for statutory accounting purposes. | TBD |
| SSAP 104R –ASU 2021-07 – Compensation (#2022-06) | Exposed | This agenda item proposes adoption in SSAP 104R of new U.S. GAAP guidance to allow the use of a practical expedient for the current price input which is a required component in option pricing models, and which are used to determine fair value of share-based payments. | TBD |
| SSAPs 47 and 68 – ASU 2021-08 – Business Combinations (#2022-07) | Exposed | SAPWG is proposing rejection in SSAP 47 and SSAP 68 of the guidance in ASU 2021-08 – Business Combinations, Accounting for Contract Assets and Contract Liabilities from Contracts with Customers. | TBD |
| SSAP 43R – Freddie Mac When-Issued K-Deal Certificates | Exposed | The working group agreed with the proposal from a large insurer that investments in Freddie Mac "When Issued K-Deal" WI securities are in scope of SSAP 43R (similar to TBA securities) versus a derivative in scope of SSAP 86. | TBD |

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# Thank you

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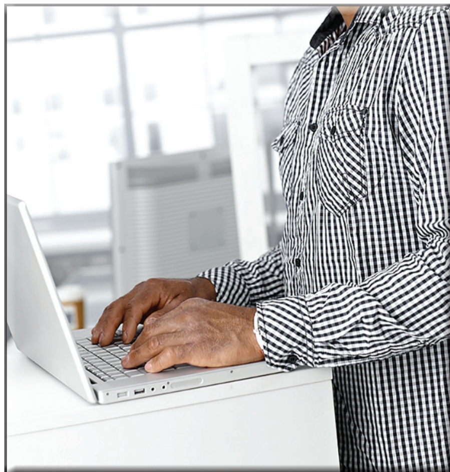
## Mark Your Calendars for
## Upcoming SOFE Career Development Seminars

Details as they are available at: **www.sofe.org**

**2022 July 24–27**
Pittsburgh, PA
Omni William Penn

**2023 July 16–19**
Louisville, KY
Omni Louisville

**2024 July 28-Aug. 1**
Oklahoma City, OK
Omni Oklahoma City Hotel




## AUTHORS WANTED

The Publications Committee is looking for members to write articles for *The Examiner* magazine. **Authors will receive six Continuing Regulatory Credits (CRE) for each technical article selected for publication.**

Interested authors should contact the Publications Committee Co-Chairs, **Joanne Smith or Robin Roberts**, via **sofe@sofe.org.**

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