The Examiner®

Volume 47
Issue 1
SPRING 2022

Official Publication of the ***Society of Financial Examiners®***

The Examiner®

Official Publication of the
Society of Financial Examiners®

Publisher
Society of Financial Examiners®
3505 Vernon Woods Drive
Summerfield, NC 27358
Tel 336.365.4640
Fax 336.644.6205

IN THIS ISSUE

CRE READING PROGRAM INSTRUCTIONS

The Society of Financial Examiners has a Reading Program for Earning Continuing Regulatory Education Credit by Reading the Articles in The Examiner.

You can earn **2 CRE credits** for each issue by taking a simple, online test after reading each issue. There will be a total of 15-30 questions depending on the number of articles in the issue. The passing grade is 70%. To take the test, read all of the articles in the issue. Go to the Members section of the SOFE website to locate the online test. This is a password-protected area of the website, and you will need your username and password to access it. If you experience any difficulty logging into the Members section, please contact **sofe@sofe.org**.

NOTE: Each new test will be available online as soon as possible within a week of the publication release. The Reading Program online tests are free. Scoring is immediate upon submission of the online test. Retain a copy of your online test score in the event you are audited or you need the documentation for any other organization's CE requirements. Each test will remain active for one year to be made available. In other words, there will only be tests available for credit for four quarters at any given time.

Earn Continuing Regulatory Education Credits by Reading The Examiner!

The questions are on the following page. Good luck!

Earn Continuing Regulatory Education Credits by Reading *The Examiner!*

CRE Reading Program Questions

All quizzes MUST be taken online.

*Questions will be **available online March 21, 2022.***

Captive Insurance - The Health Insurance Analogy

Multiple Choice and True or False Questions — Submit Answers Online

1. HSAs are regulated at the state level and certain rules apply.
   a. True
   b. False

2. Funds remaining in a HSA at year-end are
   a. Retained for future covered health expenses
   b. Forfeited
   c. Can be used for any medical expense, covered or uncovered
   d. Can be transferred to a flexible spending account

3. Asset protection is the primary purpose of using a HSA.
   a. True
   b. False

4. Insurance premiums are determined by which of the following:
   a. Expected claim expenses
   b. Company operating expenses
   c. Profit Margin
   d. Both a and b
   e. All of the above

5. Workers' compensation is the risk that underlies the largest percentage of premiums in the U.S. and the most cost efficient way for states to retain risk is which of the following:
   a. Apply for permission to self-insure
   b. Purchase a high-deductible policy
   c. Pre-fund an account with a captive insurer
   d. All of the above
   e. None of the above

Cyber Reinsurance Update

Multiple Choice and True or False Questions — Submit Answers Online

6. Global cybersecurity market is estimated to be valued in 2020 at:
   a. $2.15 billion
   b. $7.36 billion
   c. $9.87 billion
   d. $12.67 billion

7. The National Biometric Information Act of 2020 passed through U.S. Congress:
   a. True
   b. False

8. Reinsurance premium rates increased in 2021 about:
   a. 2%
   b. 10%
   c. 25%
   d. 40%

9. It is illegal in the United States to pay a cyber ransom:
   a. Yes
   b. No
   c. Depends on who the recipient is

10. The Property & Casualty Annual Statement does not include require a break out of cyber coverage written.
    a. True
    b. False

Market Briefing 2021 Review and Prospects for Regulatory Focus in 2022

True or False Questions — Submit Answers Online

11. The Federal Reserve Board (FED) plans to unwind their bond buying program and the market participants are selling short-term assets to try and get ahead of the FED.
    a. True
    b. False

12. Spain's and Germany's sovereign debt is currently at negative yields.
    a. True
    b. False

13. COVID-19 significantly impacted the following industry sectors: Retail, Travel, and Leisure.
    a. True
    b. False

14. The Industry has seen a slow-down in 2020 and 2021 related to the prepayments of Residential Mortgage-Backed Securities.
    a. True
    b. False

15. Schedule BA assets are not of a concern for examiner because of the ease in determining their valuation for Annual Statement purposes.
    a. True
    b. False

Hedging Systemic Risks in a Volatile Uncertain Complex Ambiguous (VUCA) World - the Interplay of Blockchain & Parametric Risk Transfer as a Potential Answer

Multiple Choice Questions — Submit Answers Online

16. What does the acronym VUCA stand for?
    a. Volatile, Unsuitable, Complex, Ambiguous
    b. Volatile, Uncertain, Complicated, Ambiguous
    c. Variable, Unsuitable, Complicated, Alternative
    d. Volatile, Uncertain, Complex, Ambiguous

17. What are the two pillars insurance is based on?
    a. Collection & assess ability for risks
    b. Collective & assess ability of risks
    c. Collective & assess ability of assets
    d. Collection & assess ability of assets

18. How is systemic risk defined?
    a. Systemic risk is a risk that can impair the functioning or continued existence of an entire economic system
    b. Systemic risk is an event that can impair the existence of a company
    c. Systemic risk is a risk that can impair the functioning or continued existence of a company
    d. Systemic risk is a risk that can't impair the functioning or continued existence of an entire economic system

19. What question will a loss adjuster NOT ask in case of claim?
    a. What caused the damage?
    b. When did it happen?
    c. Was it a Black Swan event?
    d. What items were damaged, and can the insured prove a loss?

20. What does the acronym PRT stands for?
    a. Paranormal Risk Transfer
    b. Parametric Risk Transfer
    c. Paranormal Risk Trending
    d. Parametric Risk Transformation

PwC NAIC Meeting Newsletter Fall 2021

Multiple Choice and True or False Questions — Submit Answers Online

21. Which of the following is not identified by the Privacy Protections Working Group as a critical privacy protection for consumers?
    a. The right to opt out of data sharing
    b. The right to limit data sharing unless the consumer opts in
    c. The right to redact data
    d. The right to correct or delete information
    e. The right to restrict the use of data

22. The newly formed RBC Investment Risk and Evaluation Working Group has been charged with performing a comprehensive review of the RBC investment framework for the three formulas, which could include all of the following except:
    a. Identifying uses of the formula that extend beyond its original purposes.
    b. Evaluating components of the formulas to reduce the complexity of the RBC calculation.
    c. Assessing the impact and effectiveness of potential changes in contributing to the identification of weakly capitalized companies (i.e., those companies at action level).
    d. Documenting the modifications made over time to the formulas.

23. Which of the following proposals were adopted during the fall meeting:
    a. The number of lines of business reported on Schedule H - A&H Exhibit was expanded to match the lines of business reported on the Health Statement.
    b. An amendment aligning the P&P Manual and AP&P Manual to clarify that the SVO can assess and assign NAIC Designations to bank loans in scope of SSAP 26R.
    c. Liquidity Stress Test Framework for life insurers that allows regulators to identify amounts of asset sales by insurers that could impact the markets under stressed environments.
    d. Multi-state Action Framework for long term care insurance rate reviews.
    e. Annual Statement supplement for reporting "direct exposures written" and "direct exposures earned" data for homeowners, private passenger auto no fault, private passenger liability and private passenger physical damage lines.

24. Which of the following is not a qualified reciprocal jurisdiction for reinsurers?
    a. Bermuda
    b. Japan
    c. Switzerland
    d. Germany

25. The Catastrophe Risk Subgroup proposed an "informational only" risk charge for wildfire peril for 2022 RBC filings, which would require insurers with wildfire exposures to calculate modeled losses using one of the NAIC's approved third party commercial vendor catastrophe models (AIR, RMS, or KCC) or an internally developed catastrophe model with approval from the lead or domestic state.
    a. True
    b. False

Captive Insurance - The Health Insurance Analogy

By Joel Chansky, FCAS, MAAA and Mike Meehan, CIC, CRM Milliman, Inc., Reprint

Captive insurance is a narrow niche within the insurance industry that is often not all that well understood, even by insurance professionals. Sometimes it seems like the insurance industry, including the captive insurance segment, has a language all of its own. As insurance professionals, we are used to using this language and jargon in our day to day jobs.

Examples and analogies can go a long way towards bridging the knowledge gap between insurance professionals and the general public for captives. Here, we will use health insurance provided by a company to its employees to illustrate a captive insurance program. Even though most captive insurance is for other types of risk, health insurance provides a great window through which to look to understand how captives work. First, we consider this from the perspective of an employee; second, we consider this from the perspective of the employer; and finally, we extend the example to other types of insurance.

1. The Employer Health Plan

For our example, we start with a group health insurance policy purchased by an employer/company from a commercial, for-profit health insurer. The policy has two annual deductible options for covered employees and their families – a low deductible ($1,000 in annual out of pocket expenses) and a high deductible ($5,000 in annual out of pocket expenses). Throughout the remainder of this article, we will assume that the employee's policy covers the employee and family. For every covered medical expense, the employee or the employee's doctor/provider submits a claim, and depending on the annual deductible chosen, the employee is out of pocket for the first $1,000 or $5,000 of covered costs during the year.

The employer pays for most of the premiums, which average $20,000 per employee per year at the $1,000 deductible level. Employees choosing the $1,000 deductible are charged 10% of the premium, or $2,000, in the form of pretax contributions from their salaries. In exchange for choosing the high deductible option and taking on the risk of having to pay extra out of pocket expenses, the company reduces the pretax contributions made by the employee by $1,000. Relative to the employee at the $1,000 deductible level, this has the effect of paying the high deductible employee an additional $1,000 in salary, representing some portion of the reduction in the employer's cost of the health insurance policy.

The company also offers a Health Savings Account ("HSA") option if the employee chooses the high deductible plan. The employer contributes $1,000 annually to the HSA, and the employee can contribute up to an additional $4,000 per year. Contributions to the HSA are on a pretax basis with respect to federal income taxes, so there is a tax benefit available to participating employees. Also, employees can direct how the funds in their HSA are invested.

2. The Employee

Starting with the employee, there is a minimum risk of $1,000 of out of pocket expenses each year. For risks that are not covered because of a deductible

provision in an insurance policy, we will use the term "retained risk" to describe this (there are other types of retained risk that will be discussed below). If the employee chooses the higher deductible option, there is an additional retained risk of up to $4,000 of out of pocket expenses. In exchange for taking this risk, the employee receives $2,000 ($1,000 in the HSA and $1,000 in extra pretax income), as well as the potential federal tax benefits afforded by the HSA. Under the high deductible, the employee now has up to $5,000 of retained risk.

Focusing on the high deductible scenario, the HSA can be viewed as a small insurance company, wholly owned by the employee and solely for the purpose of covering the risk of incurring medical expenses for that employee/family. In the corporate world, wholly owned subsidiary insurance companies that cover risks of the owner are called "captive insurance companies." The owner of a captive insurance company is usually called "the parent."

Continuing with the insurance company analogy, premiums equal the contributions to the HSA, and the employee chooses up to how much retained risk to put into the HSA in terms of these pretax contributions. That is, if the employee contributes $1,000, on top of the $1,000 contributed by the employer, $2,000 of the $5,000 of retained risk is "insured" in the HSA. The $2,000 could be considered as the policy limit. The remaining $3,000 is still retained risk, but it is not pre-funded into a segregated account. Just like an insurance company, the employee, as the owner, manages the affairs of the HSA, including directing how the funds in the HSA will be invested.

HSAs are regulated at the federal level and certain rules apply. But the key rule is that contributions to an HSA are allowed on a pretax basis. For example, if an employee is in the 25% tax federal tax bracket, contributing $1,000 of pretax salary to an HSA allows for an equal amount of health expenditures. However, if an employee does not contribute to the HSA, that $1,000 is treated as taxable income and after federal taxes, leaves only $750 – to pay for those same health related expenses, or anything else since the funds are outside of the HSA.

If there are funds remaining in the HSA at the end of the year, those funds are retained and are available for future covered health expenses. Insurers use the term "surplus" to describe such amounts left over after all claim and other obligations have been recognized.

Note the sequence of steps involved by the employee, which are to a) first choose how much risk to retain, and b) then choose how to finance that risk. On the latter point, the employee can choose not to put any additional funds into the HSA, and simply operate on a "pay as you go" basis. Here, the retained risk (other than the $1,000 contributed by the employer) is the obligation of the employee. We can think of the employee's wealth in terms of assets and liabilities (in corporate terms, a "balance sheet"). At any point in time, to the extent there are health expenses that have been incurred, but not yet paid (i.e., the employee went to the doctor and the claim has been submitted to insurance and is pending), the employee carries that obligation ("liability") on their balance sheet.

The employee could contribute up to $4,000 into the HSA, and prefund the risk by setting aside money into this wholly owned, segregated account. Alternatively, the employee could also set up a separate bank account and deposit money that is dedicated to pay retained health expenses instead of using the HSA. While that would assist in tracking health related expenses, since it would not be regulated as an HSA, it wouldn't be as tax efficient. Also, the funds could be used for other purposes if the employee needed those funds, which is not the case with an HSA. As such, a dedicated, segregated bank account has some similarities to an insurance company, but there are some material differences.

With respect to the HSA scenario, the employee is often given an HSA debit card that can be used to cover health care expenses. Or the employee can pay health care expenses separately (maybe with a credit card to get points), and then seek reimbursement from the HSA. The reimbursement would take place by the employee writing a check against the HSA to him/herself. Here, the owner of this small notional insurance company (i.e., the HSA) writes a check to him/herself from the checking account of the insurance company. In the captive insurance world, these arrangements are often referred to as "reimbursement policies." The owner has chosen to retain a certain manageable level of risk and has set aside funds in a segregated account to pay for these risks/expenses as they arise. Note that for large, catastrophic, unpredictable risks, such an arrangement would likely not make financial sense.

What drives the behavior and corresponding decisions of our notional employee? If the employee is young and healthy and has had minimal health related expenses in the recent past, it would likely point to the employee selecting the high deductible option, on the premise that out of pocket expenses will likely be $1,000 or less. Also, the employee would receive the $1,000 in additional pretax compensation and would be able to use any unused portion of the $1,000 in the HSA in the future.

Alternatively, if the employee has a pre-existing condition and/or knows in advance that medical expenses will exceed $5,000 in the upcoming year, that points to the $1,000 deductible. Here, it would be most cost effective to transfer the risk between $1,000 and $5,000 to the health insurer. Under the $1,000 deductible, the employee would need to use $1,333 of salary, which, when taxed at 25%, would leave $1,000 to pay the deductible. For the $5,000 deductible, and assuming full use of the HSA, (i.e., making the full $5,000 contribution), the employee would need to use $3,000 of salary (the other $2,000 coming from the employer in the form of $1,000 for selecting the higher deductible, and $1,000 as a direct contribution to the HSA).

For the employee with expected annual health expenses in the $1,000 to $5,000 range, some risk management comes into play. Doing the math, the breakeven point is $3,333 of health expenses. At that level, the employee with the $1,000 deductible uses $1,333 of salary, which when taxed at the 25% marginal rate, pays off the $1,000 deductible. Moving to the $5,000 deductible, the $3,333 of claims would be covered by the $2,000 from the employer, and an additional $1,333 of salary, contributed to the HSA on a pretax basis. This type of analysis is often

referred to as a "cost benefit analysis," and in the context of contemplating setting up and insurance company, it would be part of a "feasibility study," where the long-term viability of the venture would be analyzed.

In the cost benefit analysis, the employee would likely look at past health care expenditures and anticipated expenses in the upcoming year and make their decision on how much to contribute to their HSA. Some employees will simply choose the maximum amount, even if it exceeds annual expected retained risk in the near term. The HSA then builds up "surplus" that can be used in the future.

Note that the main function of most types of insurance, including health insurance, is to protect against large, fortuitous losses. Absent the health insurance, in the event of a large medical expense, the employee faces a series of financial hardships, and in extreme cases, eviction and/or filing for bankruptcy, among others. Health insurance achieves that main function – to protect the assets of the employee.

The fully funded HSA can also be viewed, on a much smaller scale, as protecting the employee's assets. By pre-funding these expenditures in a segregated and regulated account, this reduces the risk of not having enough money to cover these expenses. But the main purpose of using the HSA is to pay for retained risks in a cost and tax efficient manner, and asset protection is a secondary consideration.

Individuals have many options to retain risk. With a robust set of insurance policies, the most common retained risks are deductibles under auto and homeowners' policies. But there are other potential retained risks such as flood (not covered under standard homeowners' policies), disability (if the employer doesn't provide this), or losses over and above policy limits on purchased insurance policies, to name a few. These uninsured risks are also a subset of retained risk (although not eligible to be financed through an HSA).

3. The Employer

Turning to the employer/company, it has the option of purchasing the health insurance plan described above from a commercial health insurer. The health insurer would charge premiums based on the expected cost to cover the insured employees, with lower premiums (relative to the low deductible option) for employees choosing the high deductible option.

Insurance premiums are made up of three basic building blocks: expected claim costs, expenses to operate the company, and a profit margin. The largest component for most types of insurance, including health insurance, is for claims – actual claim costs, and the corresponding claims handling and administration expenses. The other expenses are those related to operating the health insurance company and are often referred to as "frictional costs."

Just as the employee weighed their deductible options based on their expectation of claim costs, the employer can do a similar thing, and consider retaining risk. Given enough employees, a cost benefit analysis of the employer's

historical health insurance claims often shows that the number of claims, and the corresponding costs of these claims, is fairly predictable. In some years, the historical claims data will have occasional large, unusual claims, but the timing and annual costs of these claims is more random. In our example, we assume that the employer's historical claim costs are predictable up to $300,000 per insured person per year. Above that level, the cost of claims varies significantly year over year – sometimes zero, and sometimes, millions of dollars.

The employer would then seek a quote from their health insurer whereby the employer pays (retains) the first $300,000 per insured person per year ("specific stop loss limit" for health insurance; "per occurrence limit" for most other types of insurance), usually subject to a maximum annual amount ("aggregate stop loss limit" for health insurance; "aggregate limit" for most other types of insurance). The aggregate limit, similar to the employee situation, is the maximum out of pocket risk for all retained claims for an individual insured, above which the insurer is back on risk.

The health insurer would reduce the premium to reflect their estimate of the claims that will no longer be covered by their policy. If the new premium quote, when added to the employer's own estimate of the claims up to $300,000, is less than the original quote, it suggests a cost savings to the employer. This is often the case, since some of the expenses embedded in the insurer's premiums are expressed as a percentage of premium, such as "commissions," "premium taxes," and profit margins. Commissions compensate insurance agents or brokers for putting the deals together between the policyholder (employer) and the insurance company. Premium taxes are levied at the state level and compensate the state for regulating insurers and/or for general budget items.

As an example, assume the original quote was $2 million, with 10% commission, 2% premium tax, and 8% profit and overhead/administration, for a total of 20% of frictional expenses. The employer estimates that the cost of the claims limited to $300,000 per person per year (the specific limit) will be $1.0 million (including claims administration expenses). This suggests a reduction in premiums of $1.0 / 0.8, or $1.25 million. That is, there are $250,000 of "frictional costs" embedded in the portion of the premium associated with claims up to $300,000; multiplying premium of $1.25 million by 20% yields the $250,000.

While the employer might expect the premium quote to drop by $1.25 million to $750,000, the health insurer is now faced with a policy that only covers large and unusual events (i.e., over $300,000 per person per year), and will likely increase the profit margin embedded in the new policy to compensate for this new and more variable risk profile. In our example, the quote comes back at $900,000. The employer's total cost is now $1.9 million – the retained estimated claims of $1 million plus the new premium of $900,000 – which is $100,000 below simply buying the fully insured plan at $2.0 million.

The estimate of claims is just that – an estimate based on long term averages. Actual claim costs limited to $300,000 per person per year could come in higher or lower than the average. But if, on average, the $1 million estimate is representative,

while actual costs will be higher or lower year over year, in the long run, the employer will have saved $100,000 per year.

At this point, the employer now has retained risk related to its employee health care expenses. But the risk was measured and deemed to be a cost-effective way of providing benefits to employees, while not exposing the employer's balance sheet to unusual or catastrophic events. In this case, the retained risk by the employer is not called a deductible; instead, it is called "self-insurance." The distinction is subtle and is not material to this discussion – however, it's still retained risk.

The employer is then faced with the decision as how to finance this newly retained risk – either go on a pay as you go basis and carry any corresponding amounts on their balance sheet, or pre-fund some or all if this into a segregated account. If the latter is chosen, much like the employee, a separate bank account can be established, with no special regulatory or tax treatment.

Or, the employer could establish a wholly owned, subsidiary captive insurance company. A feasibility study would be normally be conducted, which would include a cost benefit analysis, including a review of potential tax benefits. If management decides to proceed, a full business plan would be submitted as part of an application for a license in the state in which the captive will be headquartered – this state is called the "domicile" or the "domiciliary state." The captive will normally have no employees and will retain the services of insurance professionals such as accountants, actuaries, attorneys, and auditors to operate the company and meet all regulatory requirements of the domicile.

In this example, the premium would be the $1 million of expected claim costs plus the overhead and operating expenses of the captive, and any regulatory taxes (a hot topic in recent years), licenses, or fees. For a captive of this size, those expenses would likely total to about $75,000. The regulators in the domicile require that additional funds, over and above the premiums, be contributed, to provide a backstop, or cushion in the event the actual claims and expenses exceed the premiums charged. These additional funds are called "capital and surplus," surplus also includes any retained earnings as profits build up in the captive. Note that the $75,000 of annual operating expenses use up most of the savings in this example. However, there are potential benefits to using the captive, including the ability of the company to keep better track of the financial implication of their decision to retain risk. The captive's financial statements essentially summarize the impact of making this decision. This non-economic "management" benefit is often the only thing that captive owners are seeking to accomplish, at least when they initially form their captives.

4. Extending the Example to Other Types of Insurance

The experienced captive professional will note that there are some regulatory hurdles to overcome to do what's described above for health insurance, where there are special regulations at the state level. As such, the structure described above would require a few additional steps, including requiring that the parent/ employer actually retain some of the risk, and then the captive takes the residual

risk (up to the specific and aggregate limits underlying the insurance policy with a commercial health insurer).

But for other types of insurable risks of companies/employers, such as workers compensation, general liability, auto liability, and property, similar cost benefit analyses are also done. Large companies often hire full time professionals, called "risk managers," who analyze risks faced by the company, and purchase insurance to protect the assets of the company where needed. Risk managers, often in consultation with hired experts, are experienced in identifying cost effective solutions to managing risk. These solutions often involve captive insurance companies.

In the United States, workers compensation is the risk that underlies the largest percentage of premiums paid to captive insurers. Insurers categorize risks by policy types, also referred to as "coverages" or "lines of business." The workers compensation line of business is mandatory in all 50 states, but each state has different workers compensation statutes. Like the health insurance example above, retaining risk can often reduce frictional costs and result in savings to the employer. After performing a cost benefit analysis, the employer will select the level of risk to retain, expressed as an amount per accident/occurrence. The selected amount of retained risk should be a relatively predictable amount of total retained risk per year so as to not jeopardize the company's assets, while also reducing frictional costs.

In some states, the most cost-effective way to retain risk is to have a "large deductible" policy, where a licensed insurer writes the policy, pays the claims, and is reimbursed by the policyholder for the cost of claims up to the deductible level. Unlike the employee example where the deductible is a total amount for all claims during the year, the deductible for most other types of insurance is on a claim by claim basis (i.e., for each accident/occurrence). For individual claims exceeding the deductible amount, the insurer is responsible for amounts in excess of the deductible. Deductibles are a form of retained risk.

In other states, it is more cost effective for the employer/company to apply for permission to insure the risk themselves – here, the company is considered to be a qualified or approved "self-insurer." This is another example of retained risk. But since workers compensation has no policy limit, employers who choose this option are normally required to purchase insurance above some per claim level – exactly as in the employer health insurance example above. This protects injured employees against large and unusual events for which the employer either lacks assets, or would cause a significant adverse financial event for the employer. Most states also require that the self-insurer post some sort of collateral to provide a backstop in the event that they cannot pay for the retained risk.

Once an employer/company has retained risk for workers compensation, whether it's from a large deductible or from being a self-insurer, the risk financing question comes into play – pay as you go or pre-fund in a captive insurer. If a captive is chosen, the policies would reimburse the parent/owner for payments made either to insurers (under the large deductible structure), or directly to claimants (under the self-insurance structure). As described above, these are

reimbursement policies that provide some protection to assets, but that's not the main purposed of the captive. The main purposes of the captive in the example are to a) centralize the company's retained risk into a segregated account for tracking the actual cost against the estimated cost of retained risk, and b) potentially qualify for favorable federal tax treatment with respect to liabilities for unpaid claims, also known as "reserves."

There are a number of other reasons for owning an operating a captive, and there are specialized uses of captives, generally for risks other than workers compensation. For example, a captive can be used as a conduit to transfer risk to outside parties, as opposed to insuring retained risk. Here, the most cost-efficient way to transfer risk is to buy "reinsurance", which is insurance for an insurance company. Some insurance vehicles ("reinsurers" or other similar risk pools) are structured to only accept risk from insurance companies. Using a captive insurance company allows the parent company to access this reinsurance market, with the goal of transferring risk, as opposed to retaining risk.

In almost all cases, using a captive is aimed at either reducing the cost of risk, or at improving the efficiency of managing risk. And in terms of premium dollars, most captive premiums are for reimbursement policies on claims with well-defined policy limits and/or per claim limits that are not large enough to threaten the viability of the captive or its parent. While there is some asset protection, the owner/parent is willing to take on this retained risk with or without a captive – it's cost-effective to do so, much like with the employee and company in the health insurance example. Pre-funding the retained risk in a wholly owned, subsidiary/affiliate insurer can provide additional benefits, both economic and non-economic/management.

One more item on retained risk – uninsured risk. For some types of risk, there is no insurance available, or the insurance is prohibitively expensive. For example, risks related to asbestos or pollution are excluded from most liability policies. Until recently, cyber risk fell into this category as well. For risks that are essentially not insurable in the commercial market, organizations may choose to evaluate other available risk financing options, such as a captive. Deciding to do nothing simply means that the risk is retained by the parent company on their balance sheet.

Also, the discussion above focuses on captives that insure a single entity and its affiliates ("single parent captives"). Captives can also be formed by multiple owners/policyholders. These so called "group captives" function in much the same way as single parent captives, except that multiple entities own and are insured by the captive.

5. Conclusion

Captive insurance is generally fairly straightforward. For single parent captives, the owner pays premium to a captive, a wholly owned subsidiary, to insure retained risks. Many people think of this as formalized self-insurance since the parent owns the insurance company. Regardless, the process is essentially the same: a) a decision is made to retain risk; and b) then the method for financing

that retained risk is chosen. Normally, retained risk is simply retained on a pay as you go basis. That can work until the annual volume of losses reaches a critical level, and a more formalized way to finance the retained losses, such as through a captive, becomes a better risk management solution. And health insurance, both at the employee level and the employer level, provides a good way to think about how captives work.

SOFE Editor's Note: *This article was originally published on Milliman.com – the website of Milliman, Inc. on September 20, 2021. Reprinted with permission.*

About the Authors

Mike Meehan, **CIC, CRM** is a Principal with the Boston office of Milliman. He joined Milliman in 1993. Mike has experience with loss reserving, rate making, feasibility studies and financial pro formas for insurance companies, captives, risk retention groups, self-insurance groups, excess insurance pools, municipalities and Lloyd's of London syndicates. He has assisted in the review of various rate filings for state Insurance Departments and has experience with workers' compensation and residual markets. Mike is a frequent speaker on the topics of captives, risk retention groups and alternative risk financing and is affiliated with various Committees and Boards. Mike was named to Captive Review's Power 50 as one of the most influential people in the captive insurance industry annually since 2016.

Joel Chansky, **FCAS,MAAA**, Consulting Actuary, is a Principal with the Boston office of Milliman. He joined Milliman in 1987. Joel's experience in property & casualty insurance includes loss reserving, valuation studies, funding studies for captives and self-insureds, rate filing reviews for regulatory authorities and expert testimony. He specializes in alternative market issues and reviews captive and risk retention group applications for various state insurance departments. Joel is a frequent speaker on the topics of captives, risk retention groups and alternative risk financing and has been rated among the top 50 most influential people in the captive insurance industry as ranked by Captive Review magazine. He was inducted into the Captive Review Hall of Fame in 2019.

Cyber Reinsurance Update

By Sara Schumacher, CFE, CPA, CPCU, CIE, MCM, ARe
Risk & Regulatory Consulting, LLC

Every day, we catch up on the most recent news headlines in our favorite applications, on our preferred news show on television, our favorite news website, or for those that prefer paper – our favorite newspaper. It is very rare that we don't see at least one or more articles on the most recent major cyber-attack(s). What is even more worrisome is to think the cyber-attacks that make the news are only those that are reported and were significant enough to grab our attention (i.e., those that impact major industry production, U.S. Government operations, a significant number of individuals, and/or a large company).

These cyber incidents are driving the increased need for us, as analysts and examiners, to keep up to date on the cyber reinsurance market and be cognizant of factors that may be impacting this market.

Specific to cyber reinsurance, this article will provide an update on the current market, identify significant impacting factors, and discuss how these areas are shaping the reinsurance and primary insurance cyber market.

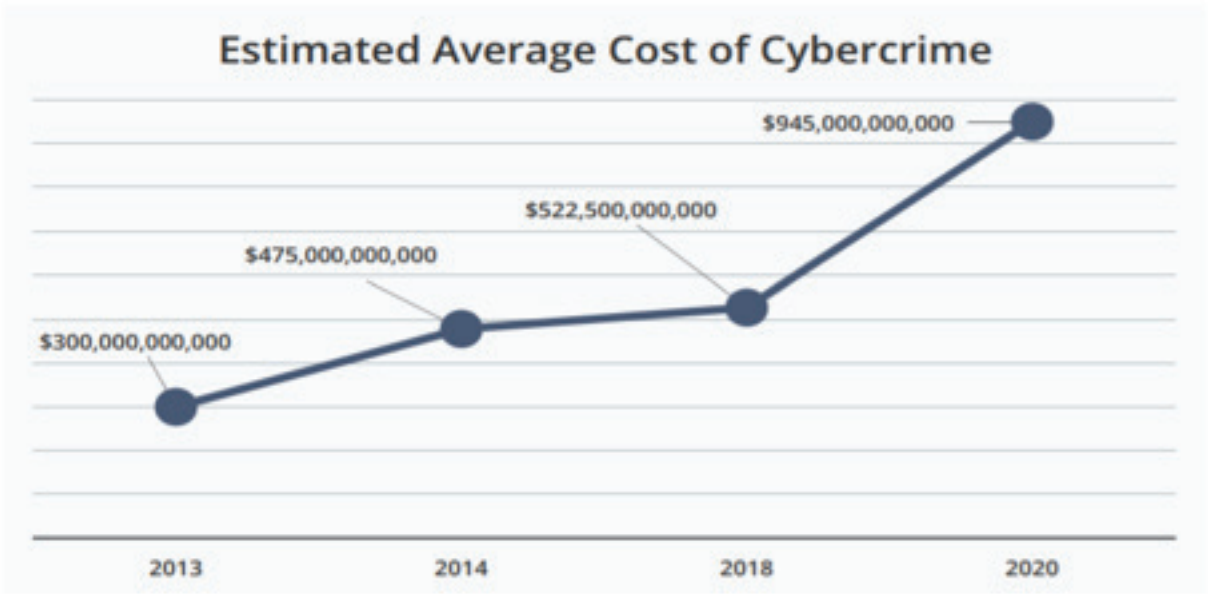
Cyber Reinsurance Market Update

Thinking of all those cyber articles we've been reading, it should be no surprise that the cyber reinsurance market has significantly hardened in 2021 during the most recent renewal on July 1st. The next several paragraphs will outline the significant factors that led to the market hardening.

Increase in Cyber Crime Costs

The most significant drivers contributing to the hardening of the cyber reinsurance market are the increase in the volume, severity, and overall cost of cybercrime insurance claims.

Since 2018, it is estimated that the cost of global cybercrimes reached over $1 trillion (about 1% of global gross domestic product) with about $945 billion due to monetary loss and $145 billion due to cybersecurity costs, as illustrated in the graph below. These figures do not take into consideration the hidden costs of the crimes: loss of opportunities, wasted resources, and damage to not just staff morale, but also to a company's reputation.[1] Based on headlines alone, it is anticipated that the cost of cybercrime will continue to significantly increase going forward. These costs consider not only those associated with cybersecurity measures, but also consider monetary losses paid out due to cybercrimes.



Graph obtained from Smith and Lostri's report on the Hidden Costs of Cybercrime Dec. 2020

While there is a significant amount of monetary losses due to cybercrime, many of these incidents and/or losses are not covered by cyber insurance policies. This lack of coverage can be attributed to a variety of reasons, including, but not limited to: policy exclusions and/or limits, specific policy definitions, and other factors such as costs that are uninsurable by law. As there is currently no standard policy form, each policy must be reviewed in detail to determine what is and is not covered. In addition, it is important to note that cyber insurance coverage can be obtained from a standalone policy, multiline policy or via endorsement on another policy. The option chosen such as standalone, endorsement or multiline policy can impact policy interpretation should there be a future dispute as to coverage, exclusion, etc. that goes to court or arbitration. It is recommended that companies reach out to their legal counsel or claims staff to consider the best option when selecting insurance coverage. Given there is no standard policy and precedents are being set every day in court, it is important that companies retain any supporting documents that may provide details on interpretation of policy language and coverage.

The following are some specific examples that may prevent a cyber-incident from being covered by the policy:

- Exclusions for malicious insider attacks, such as economic espionage, theft of intellectual property and financial crime. Conversely, a covered incident definition may include specific language that the incident must be caused by a third party. In some cases, a company may have coverage under a fidelity-type policy in cases when the cause stems from an internal source.

- Exclusions due to acts of terrorism, war and/or government/state sponsored actors. Many times, this can cause exclusions if the act is funded by various rogue nations like North Korea, Russia, China or others.

- Definitions may require the incident to have occurred on the insured's premises or to have occurred on a specified company-owned device. For example, some policies may not cover incidents when employees work from home and/or when using a device not owned by the company.

- Definitions included on monetary losses covered must be stated in a "common use" currency. An example of non-common use currency would be Bitcoin, as insurance companies tend to not admit this currency and don't transact in it; as such, many times these payments to bad actors may be not covered by the policy.

- Exclusions of ransomware payments on some policies, especially if issued in certain countries that prohibit the payment of such ransoms. Policies may have a specific exclusion and/or limit the dollar value of a ransom, or ransom payments may be excluded through terms such that the policy will comply with specified jurisdictions laws and regulations.

The most significant types of cyber claim incidents appear to be due to hacking, ransomware, phishing, social engineering, and employee negligence, with ransomware taking the top spot. The following is some recent data on cyber claims. The exact costs of cyber-attacks are difficult to fully know due to timing of data being available and companies not releasing data on cyber incidents publicly.

- The U.S. industry cyber loss ratio is estimated to have increased 22.1%, from 44.9% in 2019 to 67.0% in 2020, with an average loss ratio of 72.8% for standalone cyber policies and 58.6% for package cyber policies. This loss ratio largely erodes the industry's profit margin, with the increase primarily driven by the increase in claims severity, as claim size rose more than 50% from $48,709 in 2019 to $74,354 in 2020.[2]

- Ransomware payments increased 43%, from the first quarter of 2020 to 2021, to average about $220,000 per claim.[3]

- Ransomware attacks have also increased in frequency by about 260%, and made up about 41% of all cyber claims in the first half of 2020, with ransom demands increasing by 47%.[4]

- The average downtime due to a ransomware attack is 19 days for small to medium companies. About 70% of the ransomware attacks target small and medium sized enterprises with fewer than 1,000 employees. The average cost of a ransomware incident that included business interruption in 2019 was $342,000, with the average ransom being $81,000 and business interruption costs being $228,000.[5]

- Ransom demands have increased to the point that there is sometimes insufficient capacity in on-demand Bitcoin and other cryptocurrency exchanges to meet ransom demands in a timely manner.[6]

- Based on cyber insurance claims analysis for ransomware incidents, the average cost of a ransomware claim increased from $43,000 to $142,000 during the 2015 to 2019 timeframe for small to medium size companies. The costs driving up these claim costs were ransom demands (average of $12,000 in 2015 to $81,000 in 2019) and business interruption costs (average of $28,000 in 2015 to $228,000 in 2019).[7]

Globally, there are hundreds of millions of cyber-attacks each year that are growing in not just the number of incidents, but also the size of monetary losses. The number one target for cyber-attacks continues to be third party service providers, especially managed security service providers as these companies have access to hundreds, if not thousands, of other companies. Cyber criminals can utilize these third parties' access to easily target other companies to which they may have access. Some experts are coining the increase in cyber-attacks as "the cyber pandemic." From a risk assessment perspective, the risk of a cyber-attack for any company is increasing; however, the likelihood of occurrence and magnitude of possible loss is different for each company. For example, companies that operate in the European Union have an increased magnitude of possible loss given these entities could face additional fines levied due to cyber breach. As far as likelihood of occurrence, companies' cyber risk can be increased or decreased depending on the level of IT reliance, such as if third parties are allowed access to their systems, if they sell business online, or if they have other types of related privileges.

Increase in Demand

Given the added news coverage and corresponding negative publicity coupled with the frequency of more companies experiencing cyber-attacks, the result has been an increase in demand for cyber insurance and for reinsurance alike. The following are some specific factors driving this increase in demand.

Most executive management teams and boards of directors of companies across the globe, regardless of size, are requiring there to be some form of cyber insurance coverage in addition to increased cybersecurity measures. This increase is likely due to a shift in perception by management and the board of directors from the standpoint of "it's not if, but WHEN" will the company be impacted by a cybercrime (in many cases this phrase may need an "again" added to it). The other benefit with cyber policies is assistance from the cyber insurance and reinsurance companies in terms of the recovery process such as network restoration, public relations, determination of reason for cyber-attack/mitigation strategies to put in place to prevent future attacks, and other factors. In some cases, some insurance and reinsurance companies will also provide reminders or alerts regarding risk mitigation strategies to put in place

to prevent future cyber-attacks such as the need for software updates, identified third party access that should be terminated, phishing email tests, or other benefits to the policyholder.

A new rising demand likely to increase going forward is personal cyber insurance coverage as opposed to just business cyber insurance coverage. With more individuals working from home since the pandemic began, families have begun to see the need to have some sort of coverage for their own personal liability and/or losses. The demand for coverage is stemming from some work policies that may not cover an incident when working from home, may not cover if working on a personal versus business issued device, and/or may not cover personal costs relating to a home network or data caused by a work cyber incident. While much of the news is dominated by the cyber incidents to companies, there are also increased incidents on personal networks and data as well. Some coverage can be found in some homeowner and identity theft insurance but not always. Therefore, companies are experiencing an increase in demand for not just multiline policy but standalone personal cyber policy.

Another factor increasing the demand for cyber insurance is the increased dependence and use of technology. Demand is expected to increase commensurately with the use and adoption of new technologies including, but not limited to, artificial intelligence and automated devices. Some experts predict there will be a change from the insurance segment traditionally referred to as "Property & Casualty" to "Property, Casualty & Cybersecurity" if the market continues to increase at such significant rates.

The increase in technology in all aspects of our lives will most likely result in a corresponding demand for personal AND business cyber insurance coverage. As new insurance needs grow, and as new technologies get implemented, we are seeing the first insurance test cases go through the courts. A good recent example is determining who is liable for an accident in the various stages of an Uber or Lyft driver using their car to make money (e.g., what policy applies or does not apply when not using the ride sharing app, when an accident occurs while driving to pick up a passenger or when waiting for a passenger/ride to be assigned, etc.) or who is at fault when driving an autonomous car. As technologies continue to be developed and refined, there likely will be additional examples to add to this list.

Insufficient Supply or Capacity

As noted previously, there is an increased demand for cyber insurance and reinsurance coverage. As a result, this demand can cause strain on cyber insurance supply or capacity as insurance and reinsurance companies try to match demand while ensuring compliance with regulatory and capital requirements.

Cyber insurance is a relatively new coverage in comparison to most other property and casualty lines of business and falls in line with increased advances in technology. The first cyber policy was issued in the late 1990s.[8] Since then, the amount of business written annually has significantly increased.

The global cybersecurity insurance market was valued at about $7.36 billion in 2020 and is expected to grow to $27.8 billion by 2026.[9] The data show a cybersecurity insurance market, including both U.S. domiciled insurers and alien surplus lines insurers, writing business in the U.S. of roughly $3.15 billion in direct written premiums, reflecting a slight decrease of 0.22% from the prior year. Insurers writing standalone cybersecurity insurance products reported approximately $1.91 billion in direct written premiums, and those writing cybersecurity insurance as part of a package policy reported roughly $1.24 billion in direct written premium. The decrease appears to relate to alien surplus insurer lines decreasing the amount of cybersecurity insurance business written while domiciled U.S. insurance companies are increasing the amount of business written in the U.S.[10] The market is expected to grow at an even greater pace with the increased adoption of new technologies such as artificial intelligence, automated devices, and others.

The increase in cybersecurity insurance market creates a greater need for traditional and alternative capital at both the primary and reinsurance levels through new suppliers or companies entering the market, alternative products, and other measures. Without increased capital investment, this will cause an insufficient availability of cyber coverage or capacity in the primary and reinsurance markets alike.

Change in Regulations

While changes in cyber regulations are important for all insurance companies to monitor to ensure their own compliance, it is also important for primary insurers and reinsurers of cyber coverage to keep informed given many of these changes can impact cyber insurance. In many cases, these laws may increase demand for insurance or demand for certain benefits provided by cyber insurers. This could also impact the supply and/or benefits available. An example of increase in demand relates to some companies like Google that house and/or process data for other companies which are purchasing and offering protection. Questions can result if these companies should be at fault for violation(s) of these regulations. Lastly, these changes in regulation could also increase or decrease potential cost of a cyber claim, especially if there are significant penalties imposed for non-compliance.

There are many regulations being considered now and in the future. Some of these regulations are to ensure similar standards as other countries with which the United States may conduct significant business. There are various privacy, cybersecurity, and reporting laws across the globe and in the United States that are already in effect and which may become effective in the future.

The most significant/relevant regulations for U.S. insurers are:

- The U.S. Federal Health Insurance Portability and Accountability Act, which applies to health data. There are also penalties that can be levied for unauthorized release of this data.
- A potential Federal bill (the National Biometric Information Privacy Act of 2020), which if passed by Congress, would regulate the collection, retention and disclosure and destruction of biometric information. This could impact many industries that may collect individuals' fingerprints, face, or other biometric data to sign into devices, applications or other.
- Various states' privacy statutes, regulations, and laws such as the California Consumer Privacy Act and others that are changed and adopted every day. Many of these privacy laws require various controls and security requirements to be in place, in addition to assessing a penalty for violations.
- The continued adoption of the Insurance Data Security Model Law (or equivalent) by each state. In some cases, states may already have laws in place substantially like the model law or many have already adopted the new standards, such as requirements on having a cybersecurity plan in place, performing risk assessments, requiring reporting of cyber breaches, and other requirements.
- General Data Protection Regulation (GDPR) that was created in 2016 and became effective in 2018. In addition to a host of privacy rights and policies that must be followed by anyone processing or storing data of residents of the European Union, there is also a penalty for entities if they are in violation of the GDPR requirement, which comes into play should there be a breach of data. The penalty can be quite significant when considering the losses already incurred due to the initial cyber incident itself. In the first 10 months of 2020, there were 220 fines issued, amounting to payments of 175 million euros. There is clear evidence of an increasingly aggressive trend in GDPR enforcement since its passage in 2018. Comparing fines issued between the time periods of July 2018 through June 2019 and July 2019 through June 2020, there was a 260% increase in fine frequency.[11]

A continuing big debate across the Globe, including in the U.S. at both the federal and state levels, is if ransom payments should be illegal. Some think ransom attacks may lessen in frequency if ransom payments became illegal, or that it may encourage companies to increase their cybersecurity efforts versus having a stop gap to pay ransoms. Others oppose making ransom payments illegal. The reasoning behind opposition varies but the significant arguments are: (1) some companies may have no choice but to pay in order to gain back access to their IT systems, (2) non-payment could result in release of a significant amount of private data, (3) a company may get ransomed a second time to ensure secrecy of the illegal payment, (4) countries or companies that make ransom payments illegal could be targeted more as retribution,

and lastly (5) it is more cost effective to pay the ransom than to incur, not just the cost, but time to recover data, re-engineer decryption keys, or other tasks to be able to operate fully again. To date in the United States, the payment of cyber ransoms is not illegal unless the entity, regimes or person is on the sanctions list with the U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC). In 2020, OFAC released an alert advising criminal and civil penalties if a ransom were to be paid to someone on the sanctions list. The U.S. Treasury Department is encouraging everyone to report cybercrimes to them and regularly updates the sanctions list as bad actors are identified. These ransoms are driving up the need and cost of identifying the groups, entities, or individuals responsible for the attack to determine if it is legal to pay the ransom, if the bad actors have a reputation for keeping their word (i.e., give a legitimate key to unlock data), if they do not have a history of releasing the data later anyway, etc. There have also been discussions/debate as to whether payment in cryptocurrency of ransoms should be illegal given crypto's ability to easily transfer and hide the recipients' identities.

Given cyber coverage is a relatively new product to the market, there are also changes in regulations and risks as precedent is set through litigation. In some cases, this results in changes in the interpretation of terms, resulting in standardization of policies and other factors. An ongoing major topic in many court cases is determination of coverage due to state-sponsored attacks, as many times these may need to be excluded by law.

Cyber insurance is also coming under fire as some individuals see the act of providing cyber coverage as leading to legitimizing cyber-attacks or encouraging the bad actors to commit these acts. Cyber criminals have been targeting companies with cyber insurance and may be increasing the cost of cyber-attacks, as criminals may know the amount of coverage a company may have, especially in regard to ransom coverage. In addition, some companies may be getting lax in cybersecurity controls or may not be allocating appropriate resources to security measures, as management may be accepting the risk (e.g., management may see the cyber insurance coverage as covering costs of a cyber-attack or breach). Insurance companies therefore need to ensure they are offering incentives for or requiring policyholders to keep their cybersecurity efforts robust.

Impact Due to Hardening Reinsurance Market

The impact of the hardening reinsurance market and factors discussed regarding the cyber insurance market will likely result in the following impacts on the reinsurance and primary cyber insurance markets:

Increase in Rate

Reinsurance premium rates increased 40% during the most recent June 1, 2021 renewal. These costs will funnel down to the primary writers during the

next annual renewal. Rates to primary insurers' premium increases may swing widely depending on the company's profile, coverage provided, cyber security measures and various other factors[12]. The primary insurance rates could increase 25% to 35% for less risky companies and 50% to 60% for risker companies.[13] There is chatter that premium increases could be as high as 100%, or even greater than 150%, especially for certain industries like manufacturing and healthcare that are considered riskier due to lack of implementation of cybersecurity controls/policies or cybersecurity immaturity.[14]

Decrease in Coverage, Change in Terms and Increase in Loss Prevention

There will likely be a move to have policy terms and reinsurance terms become more standardized. These standardized terms are likely to be done to limit coverage. Policy terms are also likely to continue to change as new technology is adopted, court cases set precedent, changes in legislation take place, and various other factors.

While the extent of the decrease in coverage is not fully known, we can anticipate that primary insurers and reinsurers will want to decrease maximum liability, increase deductibles, and/or limit coverage. Limiting of coverage could be removal of coverage for ransom payments or others. Reinsurers are likely to require a significant increase in underwriting standards.

Insurance and reinsurance companies will likely see the need to increase loss prevention measures. This could be in the form of education, like requiring companies to implement a required education program such as security awareness training for all employees. Additionally, they could require certain cybersecurity policies to be put in place. Finally, they could require companies to have a cybersecurity review or audit be performed by an independent party, such as their internal or external IT auditors, or a third party consultant.

Increase in Underwriting Standards

To no surprise, primary insurance companies are likely to increase the underwriting standards and due diligence before writing all cyber policies whether new or renewal. About 73% of U.S. insurance brokers and agents are declining cyber applications.[15] In many cases, it is not just about asking and providing information on cybersecurity controls and policies in place but also requiring confirmation from outside audit firms or others as to the accuracy and effectiveness of the prospective insured's IT control environment. Underwriting determination and premium rate calculations will also focus on the company's profile, industry type, data collected, amount of data/record count, the number of employees, revenue, and other factors to determine the underwriting risk and corresponding premium amount.

Adoption of Better Cyber Risk Models and Capturing of More Data

Given cyber insurance is still relatively new and significant shifts in claim costs and other factors persist, reinsurance and primary insurance companies will continue to adopt better cyber risk models and capture/share more data. The overall goal would be to develop more adequate premium pricing rates, reserves/claims predictions, standardized policy terms, standardized underwriting policies/procedures, and other factors. Until these cyber risk models are fully developed, enough data history exists, more standardized terms that have been tested in court, and such unpredictable shifts in losses cease or are minimized, actuaries will likely be including a load or factor for unpredictability in reinsurance/premium rates that will harden the market.

There are significant difficulties in the ability to gather not just accurate and complete data but also in a format that can be easy to analyze, as noted in the factors below:

- The current annual statement format does not break cyber coverage into its own line of business. Many are calling for a change in the reporting format to add cyber in the annual statement as its own line of business, including in Schedule P. In addition, recommendations have been cited to further break out the cyber line of business into three separate lines – "Cyber Liability" for third party commercial, "Cyber Digital Damage" for first party commercial, and "Cyber Personal."[16]

- Due to cyber policies being written as a package or via endorsement, insurance companies may not break down their results into what was specifically due to cyber, like companies do when a policy is written on a standalone basis.

- Insurance companies may not disclose data to all researchers. For example, U.S. domiciled insurance companies may only release their cyber data to the NAIC while foreign domiciled insurance companies may not release cyber data to the NAIC. As many times the cyber data reporting is not in a standard report or data calls, there can be significant delays in the data being provided or data may not be reported in the same format or same scope/definition.

It can be difficult for insurance companies, analysts, actuaries and others to obtain accurate and complete data for the cyber market, which can make it difficult to monitor trends in the cyber insurance and reinsurance markets.

New Entrants to Market

As a result of increased demand and limited supply, we are likely to see new entrants writing both primary and reinsurance cyber coverage, especially given concentration of cyber risk amongst a limited number of writers. Otherwise, there will be inflow of traditional and alternative capital to the market.

According to the NAIC for 2019 (direct writers)[17]:

- The top 10 groups wrote almost 80% of the total standalone policy cyber insurance coverage for the U.S. market, with the top 20 writing slightly greater than 92%. Those with greater than a 10% share of the standalone cyber market are: AXA Insurance Group, American International Group, Travelers Group, and Beazley Group.

- The top 10 groups writing package cyber insurance products represent 71.2% of the U.S. market, with the top 20 representing 81%. The only writer with greater than a 10% share of package cyber insurance is the Chubb Group.

While a full review has not been done for 2020 data by the NAIC yet, there was an update for 2020 versus 2019 available from another source, but their review looked at individual insurer companies rather than groups. In addition, the review did not include managing general agents as completed by the NAIC above. Results from this update are as follows:

- Eight new insurers reported direct cyber premiums. The top 10 cyber insurers accounted for 68% of direct written premiums. In comparison, the top 10 writers of other liability claims made insurance account for 56% of premiums and the top 10 in commercial multi-peril account for 46% of premiums. Based on these percentages, the U.S. cyber market is still quite concentrated compared to traditional lines.[18]

This concentration of direct written risk will likely result in the need for reinsurance and retrocession coverage for the reinsurers, which will likely further drive up rates.

These new entrants may be insurance companies that begin to write cyber insurance, newly developed insurance companies, or alternative capital products. Additionally, this could become a new market area for the tech industry to move into. Companies may utilize alternative product models to raise capital and/or offer coverage.

Summary

As noted above, the cyber reinsurance and primary insurance markets are hardening based on various factors such as increased cyber costs, increased claims, insufficient supply, and changes in regulations/legislation. The hardening cyber reinsurance market is impacting the overall cyber market by increasing prices, decreases in coverage, standardization of policy terms, increase in loss prevention techniques, increase in underwriting standards, adoption of better risk models, capturing of more data, and likely continued increases in new entrants to this market.

While cyber insurance is clearly a good risk mitigation strategy for an insurer to have in place, especially when needing benefits in addition to reimbursement of expenses like a cyber incident response team, it does not replace having a strong cybersecurity and related controls environment in place. Cyber coverage also does not always provide coverage or the same benefits based on exclusions or definitions in the policy.

After reading and considering this detailed update, I hope examiners and analysts will be able to apply the information learned during risk assessments of the specific companies that they are examining or analyzing.

SOURCES

[1] Smith, Zhanna Malekso and Eugenia Lostri. Ed. and James Lewis. "The Hidden Costs of Cybercrimes." Dec. 2020. McAfee. 26 July 2021. <https://www.mcafee.com/enterprise/en-us/assets/reports/rp-hidden-costs-of-cybercrime.pdf>.

[2] Laux, Jon, Craig Kerman, Sammie Coakley-Hellman, Katie O'Donnell, Catherine Mulligan and Luke Foord-Kelcey. "U.S. Cyber Market Update: 2020 U.S. Cyber Insurance Profits and Performance." AON plc. 13 Nov. 2021. <http://thoughtleadership.aon.com/Documents/20210609-2021-cyber-market-update.pdf#:~:text=The%20sixth%20edition%20of%20Aon%E2%80%99s%20US%20Cyber%20Market,with%20COVID-19%20and%20everything%20to%20do%20with%20ransomware.>

[3] Cohn, Carolyn. Ed. And Nick Zieminski. "Cyber reinsurance rates rocket at July renewals -Willis Re." 1 July 2021. Reuters. 26 July 2021. <https://www.reuters.com/technology/cyber-reinsurance-rates-rocket-july-renewals-willis-re-2021-07-01/>.

[4] Greig, Jonathan. "Ransomware attacks driving cyber reinsurance rates up 40%." 5 July 2021. MSN and ZDNet. 26 July 2021. <https://www.msn.com/en-us/news/world/ransomware-attacks-driving-cyber-reinsurance-rates-up-40/ar-AALI6iG?ocid=BingNewsSearch>.

[5] Farley, John. "The 2021 Cyber Insurance Market Continues to Harden." Feb. 2021. Arthur J. Gallagher & Co. 27 July 2021. <https://www.ajg.com/us/-/media/files/gallagher/us/news-and-insights/2021-q1-cyber-insurance-market-update.pdf>.

[6] Net Diligence. "Ransomware 2021 Spotlight Report.". 27 October 2021. NetDiligence. <https://netdiligence.com/cyber-claims-studies/>.

[7] Net Diligence. "Ransomware 2021 Spotlight Report.". 27 October 2021. NetDiligence. <https://netdiligence.com/cyber-claims-studies/>.

[8] Wells, Andrea. "What Agent Who Wrote First Cyber Policy Thinks About Cyber Insurance Now." 3 March 2018. Insurance Journal. 27 July 2021. <https://www.insurancejournal.com/news/national/2018/03/01/481886.htm>.

[9] "Cyber Security Insurance Market – Growth, Trends, COVID-19 Impact, and Forecasts (2021-2026." Mordor Intelligence. 26 July 2021. <https://www.mordorintelligence.com/industry-reports/cyber-security-insurance-market>.

[10] Matthews, Denise. "Memorandum to Innovation and Technology (EX) Task Force - Subject Report on the Cybersecurity Insurance and Identity Theft Coverage Supplement." 4 Dec. 2020. National Association of Insurance Commissioners and the Center for Insurance Policy and Research. 27 July 2021. <https://content.naic.org/sites/default/files/inline-files/Cyber_Supplement_2019_Report_Final_1.pdf >.

[11] Farley, John. "The 2021 Cyber Insurance Market Continues to Harden." Feb. 2021. Arthur J. Gallagher & Co. 27 July 2021. <https://www.ajg.com/us/-/media/files/gallagher/us/news-and-insights/2021-q1-cyber-insurance-market-update.pdf>.

[12] Cohn, Carolyn. Ed. And Nick Zieminski. "Cyber reinsurance rates rocket at July renewals -Willis Re." 1 July 2021. Reuters. 26 July 2021. <https://www.reuters.com/technology/cyber-reinsurance-rates-rocket-july-renewals-willis-re-2021-07-01/>.

[13] Paddon, David. "Cybersecurity insurance rates likely to rise amid escalating ransomware attacks." 9 July 2021. MSN News and The Canadian Press. 26 July 2021. <https://www.msn.com/en-ca/news/canada/cybersecurity-insurance-rates-likely-to-rise-amid-escalating-ransomware-attacks/ar-AALVEAn >.

[14] Greig, Jonathan. "Ransomware attacks driving cyber reinsurance rates up 40%." 5 July 2021. MSN and ZDNet. 26 July 2021. <https://www.msn.com/en-us/news/world/ransomware-attacks-driving-cyber-reinsurance-rates-up-40/ar-AALI6iG?ocid=BingNewsSearch>.

[15] Paddon, David. "Cybersecurity insurance rates likely to rise amid escalating ransomware attacks." 9 July 2021. MSN News and The Canadian Press. 26 July 2021. <https://www.msn.com/en-ca/news/canada/cybersecurity-insurance-rates-likely-to-rise-amid-escalating-ransomware-attacks/ar-AALVEAn >.

[16] Laux, Jon, Craig Kerman, Sammie Coakley-Hellman, Katie O'Donnell, Catherine Mulligan and Luke Foord-Kelcey. "U.S. Cyber Market Update: 2020 U.S. Cyber Insurance Profits and Performance." AON plc. 13 Nov. 2021. <http://thoughtleadership.aon.com/Documents/20210609-2021-cyber-market-update.pdf#:~:text=The%20sixth%20edition%20of%20Aon%E2%80%99s%20US%20Cyber%20Market,with%20COVID-19%20and%20everything%20to%20do%20with%20ransomware.>

[17] Matthews, Denise. "Memorandum to Innovation and Technology (EX) Task Force - Subject Report on the Cybersecurity Insurance and Identity Theft Coverage Supplement." 4 Dec. 2020. National Association of Insurance Commissioners and the Center for Insurance Policy and Research. 27 July 2021. <https://content.naic.org/sites/default/files/inline-files/Cyber_Supplement_2019_Report_Final_1.pdf >.

[18] Laux, Jon, Craig Kerman, Sammie Coakley-Hellman, Katie O'Donnell, Catherine Mulligan and Luke Foord-Kelcey. "U.S. Cyber Market Update: 2020 U.S. Cyber Insurance Profits and Performance." AON plc. 13 Nov. 2021. <http://thoughtleadership.aon.com/Documents/20210609-2021-cyber-market-update.pdf#:~:text=The%20sixth%20edition%20of%20Aon%E2%80%99s%20US%20Cyber%20Market,with%20COVID-19%20and%20everything%20to%20do%20with%20ransomware.>

About the Author

Sara Jean Schumacher, **CFE, CPA, CPCU, CIE, MCM, ARe**

Sara has more than 10 years of experience in the regulatory insurance industry. As an Examiner-In-Charge, Sara leads and assists on financial and market conduct examinations of insurance companies on behalf of state insurance departments.

Market Briefing 2021 Review and Prospects for Regulatory Focus in 2022

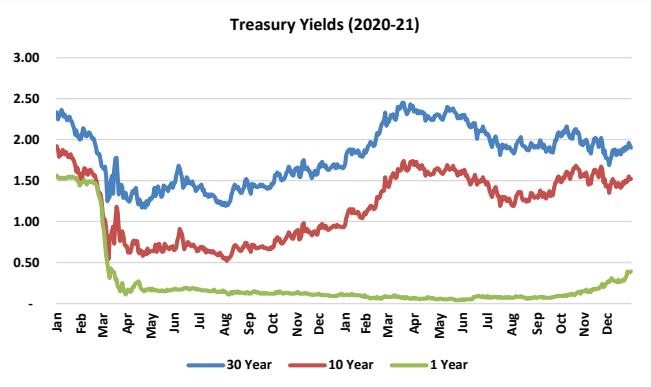
By Edward Toy
Risk & Regulatory Consulting, LLC
Reprint

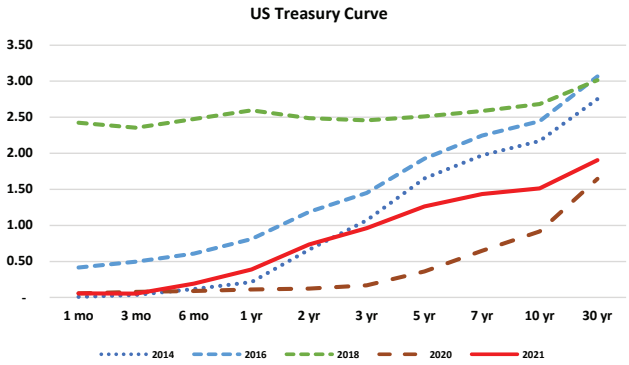
Introduction

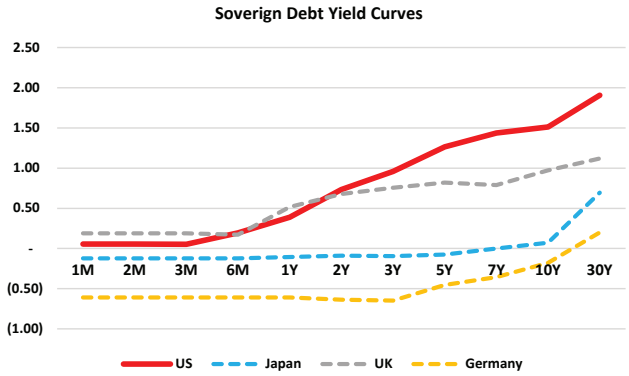
2021 was generally a good year for investment markets after a tumultuous 2020. The S&P 500 reported an overall price gain of 26.9%. National indices of commercial real estate values recovered significantly. Bond defaults and rating agency downgrades moderated significantly. As insurance regulators head into 2022, and will soon start seeing financial statement filings from U.S. insurers for 2021, what are some of the market factors that are likely to have a material impact on insurers? For ease of reference, two tables showing U.S. insurer invested assets as of year 2019 and 2020 are appended to this report. The market data in this report was found in different publicly available sources including websites for the Federal Reserve Bank of St. Louis and the Securities Industry and Financial Markets Association.

Markets

With fixed income assets (Bonds and Mortgage Loans) representing more than 80% of U.S. insurers' unaffiliated invested assets, U.S. Treasury Yields continue to be a critical metric. The Federal Reserve Board (the Fed) took drastic action in early 2020, lowering short term interest rate targets and engaging in an unprecedented long-term bond buying program that drove interest rates across the entire yield curve down 100 or more basis points. As the economy began to recover, the Fed's initial plans suggested the accommodative policy would be maintained through 2022 and possibly into 2023. However, as the recovery strengthened and supply chain issues pushed a higher inflation rate, these plans changed. In the fall of 2020, the Fed began gradually reducing the bond buying program that had enlarged its balance sheet to $10 trillion and has more recently noted the likelihood of as many as three interest rate increases in 2022. This has already nudged Treasury yields higher across the entire curve, although current levels are still lower than where they were at the end of 2019. The yield curve is also somewhat steeper, with a differential of 150 basis points between the 30-Year and the 1-Year Treasuries. This is the most significant differential since 2016, as market participants are looking to get ahead of the Fed unwind by selling long-term assets, driving prices down and yields up.



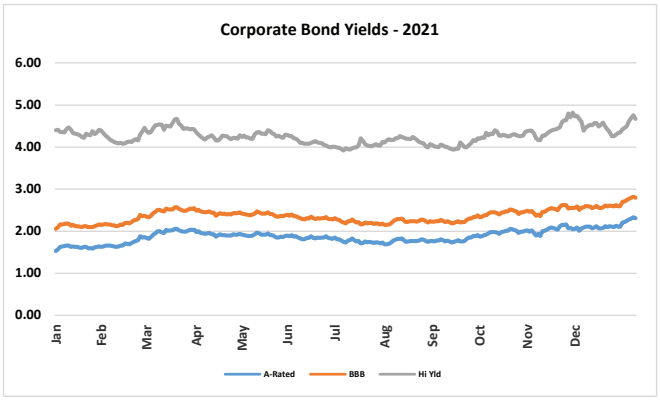


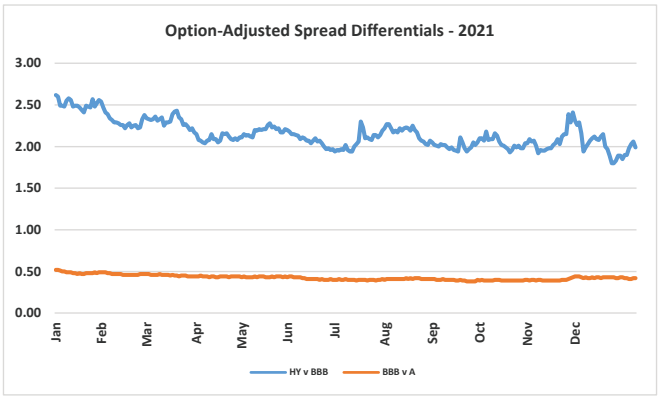


The comparison between U.S. Treasury yields and other major central stances remains relatively unchanged over time. While yields on sovereign debt of Japan and Germany have from time to time drifted slightly upwards, both of those countries currently have sovereign debt that has negative yields except for the longest maturities. Subject to the variability of currency exchange rates, this has an impact on cross-border flows of investment capital.

Corporate Bond Yields generally reflect U.S. Treasury Yields plus a spread meant to account for credit risk and other market factors, such as volatility and liquidity. Yields on investment grade bonds (A-rated and BBB-rated) were generally fairly stable throughout 2021, though slowly increasing as yields on longer term U.S. Treasuries moved upwards. Since year-end 2020, Option-Adjusted Spreads (OAS) were relatively flat for A-rated bonds, and declined slightly for BBB-rated bonds from 130 to 120 basis points. For the high-yield market, OAS declined more significantly from 385 basis points to 310 basis points. OAS for high yield bonds had spiked to over 1000 basis points in March of 2020. This was followed by a relatively dramatic recovery as defaults among below investment grade bonds, while increasing above the prior years, did not reach anywhere near the levels that some analysts, including those at rating agencies, had been concerned about. Default rates continued to moderate in 2021.

Fair market values from year-end 2020 to year-2021 are likely relatively unchanged or modestly lower. As the Fed moves to increase interest rates in 2022 and beyond, this is likely to have a negative impact on fair market values. The prospects of further increases in interest rates, especially on the longer end of the curve, will continue to put downward pressure on fair market values. For longer dated bonds, an increase of 100 basis points on bond yields can result in a decline of 15 to 20 percentage points in market prices, depending on the specific structure and duration of the bond.





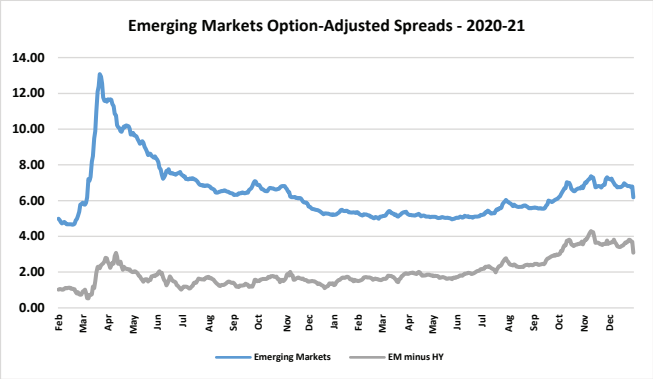
The differential between rating qualities has generally narrowed, between BBB-rated and A-rated bonds and between high yield and BBB-rated bonds. At its peak in March of 2020, the differential between BBB-rated bonds and high yield was 600 basis points as compared with the 200 basis points at the end of the year.

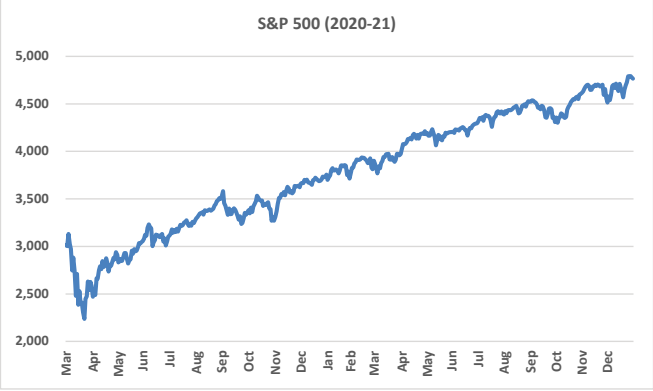
The differential of only 200 basis points between the BBB-rated and high yield bond indices is the lowest it has been since 2018. It reflects a return of the market's search for additional yield as defaults and downgrades moderated.

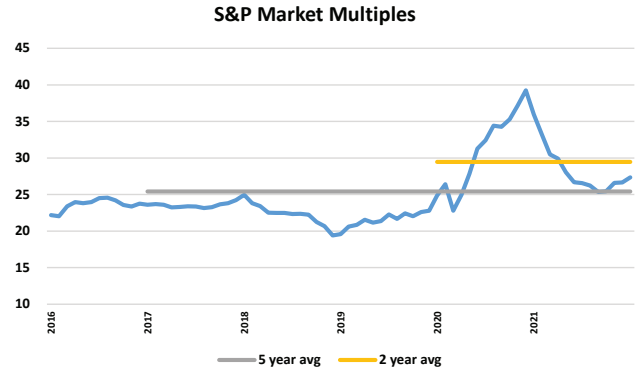
We continue to pay close attention to what we call "cusp markets". These are asset classes that are more volatile than the more traditional assets of U.S. insurance companies but offer some incremental yield. One example is Emerging Markets debt, which tend to be right around the threshold of investment grade and below investment grade. After a dramatic recovery by the end of 2020 that was similar to U.S. corporate bonds, yields on Emerging Market debt

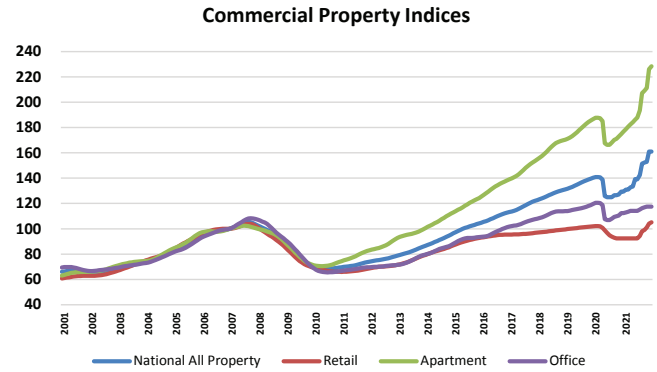
drifted upwards. The differential with U.S. high yield debt also widened back out to about 400 basis points. This likely reflects lingering concerns about the impact of the COVID-19 Pandemic on smaller, weaker economies.

The performance of equity markets, as represented by the S&P 500, has been strong, very quickly recovering from the dramatic downturn in the spring of 2020 when the index dropped 30% in the span of six weeks. The S&P 500 ended 2020 actually up 16.5%. The equity market recovery preceded the recovery in earnings, leading to a brief spike in market multiples. Initially the recovery was not across all sectors as some were seen as being more significantly impacted by the COVID-19 Pandemic and the resulting economic turmoil. This included primarily Retail and any industry related to Travel and Leisure. Another sector that struggled was that of Financial Institutions, due to concerns about portfolio defaults and the impact of lower investment yields. As the fears of a dramatic jump in defaults did not materialize, equities in Financial Institutions improved. The Energy sector also initially struggled given a significant drop in oil prices. While there are still some concerns in these industries and sectors, the equity market recovery has evened out. In 2021, an index of Financial Institutions increased 32.4%. Insurers faired somewhat less well, increasing 20.2%, most likely due to concerns about the longer term impact of lower investment yields.









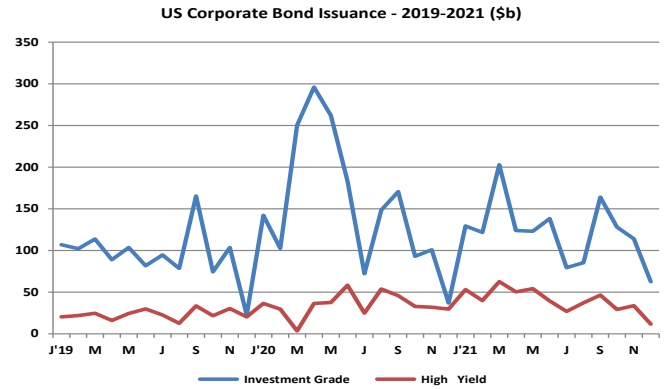
The economic shutdown in 2020 had a dramatic impact on commercial real estate values. Some retail malls and shopping centers closed. The Retail sector had already been struggling, as reflected by announcements of store closings and bankruptcies of well-known chains. The Pandemic has accelerated the restructuring of many Retail properties. Many tenants sought and were granted rent deferrals. Apartment properties on the other hand performed well throughout the period. Work-from-home mandates did not have an immediate impact on most Office properties as they are subject to long-term leases.

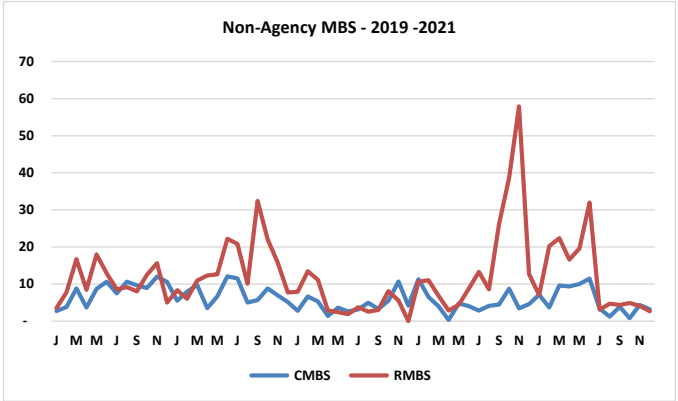
In 2021, there was a recovery in Retail property values, though still at a lower level compared to other property types. On the other hand, valuations of Office properties continue to be somewhat weak as investors may be assessing the longer-term impact of tenants deciding to stay with some degree of work-from-home. As leases slowly expire, larger tenants may opt for smaller spaces. There may also be some differentiation across different Office properties, between those in suburban areas versus Central Business Districts, and buildings that offer different amenities. In 2020, the NAIC's Life Risk-Based Capital (RBC) Working Group agreed to certain adjustments to the inputs for the Commercial Mortgage (CM) Quality Rating formula. This was under the assumption that the negative impact on commercial real estate in 2020 was transitory. While U.S. Life insurers are allowed to use a pro-forma number for the calculation, they are still required to report the actual data points in the RBC Worksheet.

New Issue Volumes

Companies continued to take advantage of the low interest rate environment to issue new debt. Both investment grade and below investment bond issuance had been increasing annually since 2008, and both spiked further in 2021. Investment grade bond issuance in 2021 exceeded $1.8 trillion, and below investment grade bond issuance edged above $400 billion.

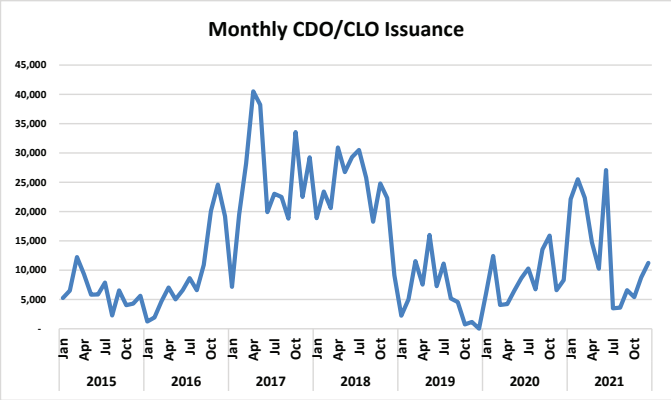
Notwithstanding a couple short-lived spikes in activity, issuance of Non-Agency Mortgage-Backed Securities continued at relatively low levels and are a shadow of what they were before the 2008 Financial Crisis. One factor that was significant in 2020, and continued into 2021, was a dramatic increase in prepayments of Residential Mortgage-Backed Securities (RMBS). In some cases, actual prepayment experience was as much as twice what had been forecast. This means insurers needed to reinvest at significantly lower yields and will likely experience significantly slower cash inflows from RMBS over time. Analysts continued to struggle with modifying their prepayment models through much of 2021 to account for the continued inflows.





Issuance of Collateralized Loan Obligations (CLOs) has been the topic of frequent discussions over the last ten years, and it has drawn the attention of financial regulators as the underlying assets are generally below investment grade borrowers. Issuance declined significantly in 2019 with increased attention of banking regulators, but returned in the latter part of 2020 and

early 2021. This latest increase is at least partly due to banks looking to offload their exposure to assets that are tied to the London Interbank Borrowing Rate (LIBOR) prior to the transition from LIBOR to Secured Overnight Financing Rate (SOFR) at the end of 2021.



A Few Additional Words to Take Away

As we reviewed where markets ended in 2021 and are wrapping up the investment work for financial exams, there are some noteworthy highlights, or low lights. In that work, while the exams were conducted as of year-end 2020, we have also considered transactions activity in 2021 to discern if there are any material changes in investment practices. It is safe to say that trends, some of which may have taken a breather in 2020, continued in 2021.

There were many concerns about the performance of commercial real estate properties that support the U.S. insurance industry's Mortgage Loans. Notwithstanding some forbearance that was needed in some portfolios, it appears that the industry-wide exposure performed very well. Subject to some re-evaluations of underwriting criteria, industry exposure likely increased in 2021. For Life insurers, the 2021 RBC Worksheets may provide valuable insight as they will include actual 2020 Net Operating Income and Debt Service Coverage data. We noted an increase in less traditional activity. This included an increased exposure to Residential Mortgage Loans (that are not in RMBS) and an extension to construction loans of varying flavors. The monitoring and management of these assets are different, which warrant additional attention.

In general, the U.S. insurance industry's exposure to CLOs also appears to have performed well through the Pandemic. This is especially the case for those insurers that focused on senior and mezzanine classes, as opposed to subordinated classes. Fair market values have largely recovered. Where they have not recovered, it is likely due to downgrades, either actual or prospective.

As noted above, the significant increase in prepayment volatility in RMBS may have had a material impact on the cash flow management of many insurers. How insurers manage the cash flow variability is a potential concern. The large influx of cash needed to be reinvested at lower investment yields and, where reinvestment was in additional RMBS, there may be significant extension risk as interest rates rise. If their holdings are at carrying values that are significantly different from par, adherence to guidance on valuation in SSAP No. 43R is also an area to focus on.

Privately placed bonds as a percentage of the total portfolio had already been increasing over time. There may be a further shift to true private placements, as opposed to privately placed bonds that are trade-able under exemptions such as Rule 144A. Investment managers are continuing to press on directly-originated assets that are not widely distributed and may not be eligible under Rule 144A, hence are less liquid. While this may not present any different issues beyond those that are already on regulators' radar – Credit, Market and Liquidity – there is less transparency and possibly an incremental degree of risk.

Life insurers, in particular, also appear to have pressed further on Federal Home Loan Bank membership and the leveraging of assets. While the ability to earn a positive spread over the borrowing rate is enticing, this activity does need to be carefully monitored and managed. Insurers should have detailed guidelines on the duration mismatch between the tenor of the borrowing, the invested assets, and the assets pledged as collateral. The pledging of assets may also impact liquidity. Proper oversight by the Board is important to avoid adding significant risk to asset-liability management.

While Investments Reported on Schedule BA have always been a focus of regulators and growth in this exposure on an industry-wide basis has not been significant, valuation is an increased concern with more volatility and uncertainty in the market. Are insurers paying attention to valuation guidelines of the fund managers for private equity funds? Do they have enough information to determine that valuations are reasonable? Collateral Loans may also be more problematic.

And as a final note, volatility in the market can lead to significant volatility in Derivatives valuations. The increase in longer-term interest rates at the end of 2021 and expected for 2022 will have an impact on valuations of interest rate swaps and other interest rate related derivatives. While this may not have a material impact for exposures deemed to be Hedge Effective for accounting purposes, other exposures will impact the insurers' financial statements.

A considerable amount of this activity and these trends are the result of U.S. insurers continuing to increase their reliance on investment managers, especially unaffiliated investment managers. While it is safe to say that most investment managers take their fiduciary responsibilities very seriously, greater vigilance over the investment management agreements, ensuring that they are fair and reasonable, is important.

It is also worth highlighting a change in NAIC guidance. Effective with year-end 2021 are new Risk-Based Capital factors for Bonds for all insurer types, and for real estate held by Life insurers. The new factors for Bonds are generally higher resulting in an increase on Risk-Based Capital requirements for most insurers. The preliminary indications are a 10% to 20% increase. This may be materially higher for those insurers that are more heavily exposed to certain rating grades, such as BBB-minus bonds. The increased granularity of the new factors were specifically intended to capture the appropriate differential and limit any inappropriate arbitrage of the guidance.

SOFE Editor's Note: *This Market Briefing was originally distributed by Risk & Regulatory Consulting, LLC on January 26, 2022. Reprinted with permission.*

About the Author

Edward Toy is a Senior Manager at Risk & Regulatory Consulting, LLC who performs investment and risk management consulting services for state insurance departments. He has extensive knowledge of insurer investments and investment strategies, and how they fit within regulatory guidance. Ed's professional experience in investments includes 25 years as an analyst, trader, and portfolio manager across multiple asset classes and investment strategies. Prior to his employment with RRC, he served as Senior Technical Policy Advisor, Capital Markets & Macro Prudential Surveillance at the NAIC. His responsibilities included working with state insurance regulators in the development of tools for oversight of the insurance industry as they relate to investment portfolios and coordinating with other NAIC staff and state insurance regulators on matters impacting financial/solvency regulation of insurers and capital markets. While at the NAIC, Ed also founded and served as Director of, the Capital Markets Bureau.

Hedging Systemic Risks in a Volatile Uncertain Complex Ambiguous (VUCA) World - the Interplay of Blockchain & Parametric Risk Transfer as a Potential Answer

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

"We could carry a local epidemic.
A global event like a pandemic is simply not insurable."

Michael Diekmann, Chairman of the supervisory board, Allianz SE

There have been many discussions in trade journals in recent weeks and months, on the subject of "Pandemic / Covid-19 / Corona." A world economic crisis triggered (probably by a bat) in a relatively unknown region in China. Who could have imagined such a scenario, beyond the screenwriters of Hollywood? Unfortunately, such incidents are "the new normal." Again and again, people are confronted with triggers that nobody would have guessed, but the consequences are felt globally. In this context one very often reads it is a "systemic risk."

What is that? Systemic risk is a risk that can impair the functioning or continued existence of an entire economic system. While the specific risk or individual risk only affects certain system participants in isolation without endangering the system as a whole. The systemic risk spreads to other economic entities or systems through spill-over or the contagion effect in the form of the domino effect. In the insurance industry one would speak of an accumulation loss, something that every insurance company in the world fears and can lead to collapse. So, let us turn our attention to the crucial question of this article: Is insurance the answer to systemic risks? The answer is no. Why?

Principle of Insurance

A small appendix and the description of the principle of "insurance:"

> *Insurance refers to the basic principle of collective risk assumption (insurance principle or equivalence principle), whereby many people pay a sum of money (= insurance premium) into the insurer's capital collection center, in order to receive compensation from this capital collection center when a corresponding loss, the insured event, occurs. Since the insured event will only occur with a small number of insured persons, the assets of the collection agency are sufficient if the premium is paid. The prerequisite is that the extent of the losses can be statistically estimated, and that the contribution required from each member of the collective can therefore be determined using actuarial methods.*

By definition, insurance is therefore based on two pillars. The "collective" pillar and the "assessability of risks" pillar. Is this possible in the case of a systemic risk? No. The extent can be modeled with certainty and derived from previous catastrophes, but a collective approach is useless because all parties are affected, and the insurance premium would therefore have to be 100 percent of the loss amount. The premium would have to be even higher because the insurer has additional distribution costs, administrative costs, costs for "claims settlement," etc.

Parametric Cover

Traditional insurance is based on the principle of indemnification: a demonstrable loss against an asset. Take home insurance, for example. A house will be in a particular location of a known size and built from specific materials which makes its asset value easy to establish. If the house burns down, a loss adjuster can estimate the damage, and this can be used as the trigger for the claim payment. With parametric insurance, the pay-out is not linked to identified damage, but instead to an index or set of parameters that gauge the severity of the event.

A loss adjuster will ask many questions in the claims process such as:

- What caused the damage?
- When did it happen?
- What items were damaged, and can the insured prove a loss?

Parametric insurance does not require any questions like this. The simple fact that an index reached a specified level is enough to trigger the claims payment. Examples of parameters that can be used as triggers are rainfall volume or seismic intensity. So, for flood insurance, if the rainfall volume in a particular area exceeds a defined number, a pay-out will be made without having to demonstrate that any flood damage has occurred. Likewise, in an earthquake scenario, if the seismic intensity exceeds, say, seven on the Richter scale, a parametric contract will pay out even if there is no loss to compensate. A claim is the moment of consummation in an insurance relationship. After all, that is the real product that is being sold. Parametric solutions can improve this relationship by avoiding arguments about causality and valuation and delivering a speedy payment. Knowledge, trust and price were identified earlier as three reasons why customers might not be buying traditional insurance. Parametric solutions can deliver improvements in all three:

> **Knowledge** – Parametric Risk Transfer is more transparent as it is based on a single identified numerical value equally understood by both parties.
>
> **Trust** – no tricky 'small print' or obfuscation around exclusions, causes or damage. Pay-outs are streamlined and much faster.
>
> **Price** – by eliminating underwriting and claims settlement costs, these savings can be passed on to customers in lower prices.

In addition to these, there are other benefits to parametric cover. There is a greater time flexibility as the contracts can be tailored for specific scenarios and do not have to be renewed annually. Typically, a parametric contract is multi-year, of three to five years duration. The normal insurance annual cycle requires exposures and asset values to be changed every year based on accountants reports and the like, whereas parametric risk transfer has no such

limitations because it is not linked to underlying assets. Contracts can also be shorter than one year, for example, just covering the Christmas shopping season or summer holiday periods. Parametric cover is based on inclusion rather than exclusion. A traditional insurance wording starts with a base premise and then carves parts out through detailed exclusions, deductibles and limits. The parametric approach remains at a high level. All that is required to be demonstrated is simply that the event happened, not what caused it nor what harm resulted.

Traditional insurance is well suited to high frequency, low severity events aimed at households and small businesses. A multitude of small-scale losses are easier to model and manage due to the richness of historic data and the fact that the law of large numbers will enable accurate macro level predictions. Parametric cover in the past has been focused on low frequency, high severity events. It was initially developed in the form of catastrophe bonds to provide extra reinsurance capital for major disasters. Natural catastrophes are relatively easy to predict and determine their probability of occurrence. But pandemics? Terrorist attacks? Global cyber-attacks? How do you design a cover concept for a completely unknown event and how to price it?

How to Set-Up a Parametric Risk Transfer

The parametric approach removes the need for human judgement, investigation and debate in the claims process and replaces it with an index-based trigger. While this gives many advantages in speed, validation and transparency it also has a potential disadvantage: what if the index does not properly match the risk being covered? This gap between customer expectations and eventual outcome is known as basis risk. It is an imperfect correlation between the risk and the index. If the parametric product is poorly designed, the trigger level in the contract and the damage suffered by the client will be discrepant. There are two types of basis risk:

Adverse basis risk – damage occurs but index is not triggered

Perverse basis risk – a false positive pay-out – index triggered but no damage

If there is too much perverse basis risk, then the product should not really be called insurance and acts more like a derivative. Strictly speaking, insurance should not offer any upside reward. This balance of risk and reward is critical. A key principle of insurance is that insurers should offer premiums that are proportional to a customer's risk. High premiums will attract only the riskiest customers, leading to greater pay-outs thus reinforcing a vicious spiral leading to market collapse. This effect is known as adverse selection by insurers.

A major consideration in balancing these risks is granularity. If the product is pitched at a macro level, such as blanket country wide coverage, then mismatches at a local level are very likely. Conversely, reducing scale to only

encompass small localities is costly, cumbersome and hampered by scarce and patchy data. So, finding the correct level of granularity at which to construct the models is critical to success.

Index Independence and Moral Hazard

A second key consideration is the independence of the index trigger. The index must be detached from any potential influence by either the insurer or the insured. There are two reasons for this. It eliminates any subjectivity over the pay-outs and removes the risk of moral hazard. This is related to the concept of adverse selection, but where the latter addresses the type of product, moral hazard is concerned with actions. If the insured, through their actions, can manipulate the index so that it rises above the trigger level, that would constitute moral hazard.

Indexes based on climate or geological data are safe from moral hazard as customers are unlikely to be able to make the wind blow harder, the rain last longer or an earthquake more violent. They could, however, tamper with the local measuring equipment so it is important that the reporting body is a trusted, independent entity. Other measurement factors are less robust. Corporate financial figures like revenues and profits, though independently audited, can be quite subjective and rely to a great extent on the honesty of the corporate in question. The huge accounting discrepancies that bankrupted Exxon and Carillion are salutary lessons in this regard. Likewise, cost-based measures, where the spending is under the control of the insured, are rife with moral hazard. Why not spend as much as you can if the insurance company is going to pay for it?

Another consideration is the risk of index failure. What would happen if the index could not be calculated on a particular day? Maybe the extreme weather has damaged the sensors so no readings can be taken, or a cyber system failure creates a gap in the data record. What interpolation method is specified to patch the void? Are there any back up providers? These types of eventualities need to be appraised and mitigated when defining the parametric trigger.

Interim Conclusion

In summary, it can be said that the insurance approach is not suitable for systemic risks. And although the statements of the insurance experts caused a lot of resentment among the population, I completely agree with Michael Diekmann that a pandemic is not insurable. However, this does not mean that it is not transferable! What does this mean for the B2B insurers of this world? It seems a bit like the development from European soccer to American football. Same origin, but in the end a completely new sport. I don't know of any player who was successful in both sports. Michael Jordan - best basketball player in the world, in baseball very, very average. Are people facing global catastrophes and the need to insure them, slowly ending traditional insurance com-

panies? Tatjana Winter, expert for digital transformation, evaluates this thesis as follows:

The insurance industry is transforming very slowly, and the focus has so far been almost exclusively on distribution. Other industries are significantly further along in this process. However, parametric solutions can speed up the digital transformation very much, because things have to be developed from scratch and can be rolled out digitally from the beginning.

The future of risk transfer - especially for major and catastrophe losses - will be parametrically driven and indemnity insurances will become obsolete. It will be exciting to see whether traditional insurers drive this development, or whether they will also be obsolete in the end and tech companies bring the solutions to the market faster and more convincing. What might such a solution look like in practice? In the following course, the practical implementation, based on a real example, is demystified and described.

Practical Example

The parent company is one of the largest companies in France and one of the premium sponsors of the 2024 Olympics in Paris. The company owns a captive which is located in an off-shore domicile in Europe. The captive has been asked by its French parent to purchase insurance coverage for a pandemic-related cancellation of the 2024 Summer Olympics. Of course, the captive managers and various consultants tried to reinsure the risk and buy capacity in the relevant known markets. However, no capacity was provided by the (re-)insurance market. So what to do? Accept the risk and pray? Have all the possibilities of Alternative Risk Transfer already been exhausted by shifting the risk to the single-parent captive? Not at all. Where supply and demand meet, a market is created. But who do you approach when the largest capacity providers in the reinsurance market have already declined with thanks? Correct, the big brother, the capital market. Admittedly, this market is relatively large, so you have to narrow down the potential "partners" a bit. Investors who invest in the safest possible asset classes are certainly out of the question, and even unknown, small family offices are not necessarily the right ones. Hedge funds and investment banks, on the other hand, are exactly the right partners. They are explicitly looking for investments with relatively high returns and accept a hundred percent risk of default in return.

Why is this possible? The investment strategies of hedge funds and investment banks are very heterogeneous. They are often balanced in such a way that if you make losses with one case, you definitely make profits with another. Much in the same way, if you had bought Delta shares short and Zoom shares long after the pandemic. The portfolio manager calculates the scenario of a cancellation of the games and, unlike the insurance industry, has the opportunity to make money even in the event of a cancellation if he uses his information correctly and equips his portfolio accordingly. We had found two investment banks that were themselves based in Paris and were

interested in the risks. Their list of requirements was relatively simple, the wording had to be as clear and simple as possible. The reasons for this are that the capital markets do not want long claim adjustment processes and, on the other hand, they want to be able to trade the risk. In the world of the capital markets, the principle of the "law of large numbers" does not prevail, but their approach is similar to "slice and dice."

Understanding this, we now turn to the role a captive entity preforms in accessing and activating the parametric solution. What is currently being hyped in the insurance industry like the discovery of the holy grail, is common knowledge in the investment world. All investments are ultimately based on indices. A double-trigger model was agreed upon. This means that both scenarios (I. Declaration of a pandemic by World Health Organization // II. Cancelled Olympic Games 2024 by the International Olympic Committee) must occur in order for the agreed sum of 150 million euro to be paid.

Editor´s note: Policyholder is a single-parent captive that will receive €150 million if the two defined triggers occur by August 11, 2024. In return, the captive pays a one-time premium of 8.25 percent. I'm sure some readers will think - well, it's not that new, and the headline said something about blockchain - which hasn't played a role yet. Dear readers, it's coming now...

According to the current state of the calculations of our artificial intelligence, the probability of a pandemic-related cancellation of the Summer Olympics is about 4 percent. This varies daily and of course depends on global developments. The price for the bond varies accordingly, of course. This makes it tradable. If the hedge costs 825 basis points at the beginning, the true price could fall or rise. In traditional insurance, this development is not taken into account, at least by the policyholder. In the case of the captive, the entity no longer participates in or shares the risk by assuming it. This changes with the Parametric Risk Trading solution approach. The captive can economically participate in the probability of occurrence in two ways. On the one hand, it can buy back the risks on the blockchain-based risk exchange, on the other hand, it can exploit its knowledge vis-à-vis other companies or captives that also want to hedge against the risk and act as a third party captive (risk taker) on the market.

This is a significantly different role for the captve entity, not participating in risk financing itself, but the captive becomes the platform for the transaction and the captive owners are empowered to manage the capital transaction.

In order to make this business scenario a reality, various prerequisites must be met. On the one hand, there are regulatory requirements, and on the other, the necessary prerequisites must be in place. Specifically, the amount of the margin and the guarantee that the risk taker actually has the financial abilty to back the 150 million euro. In our case, in the event of the occurrence of the event. In the course of the "slice and dice" procedure, it is difficult to maintain

an overview here, and for the policyholder this is a completely new form of risk transfer.

Accordingly, the most important asset that has been built up over centuries in the traditional insurance environment, trust in the risk carrier, is missing. This security is provided by blockchain technology. At any point in time, the transactions are stored there. It is the most secure and at the same time the most transparent technological solution in the market. Transactions cannot be falsified under any circumstances. All movements are recorded in real time and are equally accessible to all parties involved. In combination with the parametric design of the contract, the money is in the contract holder's account within hours.

Conclusion & Outlook

The global reinsurance market is worth 500 billion US dollars. The total capital market is 350 times that amount, specifically 175 trillion US dollars. Accordingly, the argument of a lack of capacity no longer applies. Systemic risks are considered to be uninsurable. This fact does not apply a role for the capital market, as they use a completely different approach to risk hedging or portfolio construction. Instead of the "law of large numbers," they choose the "slice and dice" approach. A blockchain-based ecosystem also eliminates fraud risk altogether, and artificial intelligence helps both captive managers and investors define triggers and calculate probability of occurrence.

The presented example can be understood as an inductive approach. This means that the model is adaptable, especially for hard-to-calculate/hard-to-cover risks (systemic & emerging risks and for coverring intangible assets). Why this one in particular? Because they are blacklisted by traditional reinsurers and therefore there is no offer to insure. Correspondingly, the high "premiums" the corporates are willing to pay makes the risks interesting for capital market participants who deliberately look for high yield investments. The future of the captive industry is digital, parametric and capital market driven, thanks to a VUCA 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.

PwC NAIC Newsletter

January 2022

The National Association of Insurance Commissioners met this fall and in San Diego for the Fall National Meeting (in hybrid format). This newsletter contains information on activities that occurred in meetings from October 2021 through January 20, 2022. For questions or comments on this Newsletter, please feel free to contact us at the address given on the last page.

In this issue

Executive summary

- The Special Committee on Race and Insurance continued its work to develop tools to assess unfair discrimination in insurance transactions. Workstream 5, which is addressing health insurance issues, adopted its Principles of Data Collection document, which includes recommended standards for data collection of personal information, including race, ethnicity, and gender identity.

- The Group Capital Calculation Working Group reviewed the results of its trial implementation of the GCC template and instructions and exposed proposed revisions for comment, including removal of the stress scenario of a 30% decline in available capital.

- The Statutory Accounting Principles Working Group adopted guidance on the accounting and classification of residual tranches and credit tenant loans. They also made significant progress on their principles-based bond proposal project, with exposure of a discussion document of possible reporting changes to Schedule D, Part 1 to reflect the proposed two classes of bonds, issuer credit obligations and asset backed securities. The working group also reported they will resume discussion of open projects on goodwill, consideration of ASU 2016-13 (CECL) and several others.

- The NAIC formed the RBC Investment Risk and Evaluation Working Group to comprehensively address investment-related proposals, including the appropriate RBC treatment for asset-back securities, CLOs and CFOs. The Life RBC Working Group exposed structural changes to implement revised C-2 mortality risk factors for 2022 RBC filings. The Catastrophe Risk Subgroup exposed for comment its long-awaited proposal for an Rcat component to capture wildfire risk, for informational purposes only for year-end 2022. The Health RBC Working Group is considering revisions to the "health test" for determining whether certain Life and P/C entities should file the Health Annual Statement.

- The VOS Task Force agreed to study in 2022 a report from the SVO that recommends reconsideration of the Filing Exempt process for privately rated securities, including a requirement for at least two CRP ratings for all such securities.

- The Blanks Working Group adopted and exposed several proposals that increase the granularity of lines of businesses reported in the Life, Health and P/C annual statements.

- The Macroprudential Working Group exposed for comment a two-page list of regulatory considerations related to the ownership of insurers by private equity investors.

- The Climate Risk Disclosure Workstream proposed 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, with a proposed effective date of 2022 filings.

- The Restructuring Mechanisms Working Group held it first public meeting since 2019 to continue discussion of its proposed white paper on restructuring of liabilities through insurance business transfers and corporate divisions.

- The Life Actuarial Task Force began discussion of a possible new actuarial guideline on modeling complex or high-yielding assets as part of asset adequacy testing. The task force also reported that the new economic scenario generator project likely won't be completed until 2023 and implemented for the 2024 Valuation Manual.

- The Long-Term Care Insurance Task Force adopted its MSA Rate Review Framework that provides a consistent national approach for reviewing long-term care insurance rates and proposed rate increases.

Executive Committee and Plenary

In addition to Executive Committee and Plenary adoptions discussed in various topics below, the commissioners adopted at the Fall National Meeting the promotion of the Innovation and Technology Task Force into a new committee reporting directly to the Executive Committee: the Innovation, Cybersecurity, and Technology (H) Committee.

During its annual election, the committee chose its 2022 NAIC officers: Director Dean L. Cameron, President (ID); Director Chlora Lindley- Myers, President-Elect (MO); Commissioner Andrew N. Mais, Vice President (CT); and Commissioner Jon Godfread, Secretary-Treasurer (ND).

Special Committee on Race and Insurance

During the Fall National Meeting, the Special Committee on Race and Insurance, which has been organized into five workstreams, heard updates on the progress of each workstream. The special committee also heard a presentation on Colorado's recently adopted law on insurers' use of external consumer data. See the summary of the inn0vation, technology and privacy initiatives on page 5 for additional discussion.

Workstream 1, studying the diversity and inclusion initiatives within the insurance industry and insurance products, held a public call in November during which several companies and trades associations spoke to help the regulators better understand industry diversity-related programs and how companies are measuring progress. Workstream 1 is now discussing next steps and how they can support the industry.

Workstreams 2, the diversity and inclusion initiatives within the NAIC and state regulatory community had previously developed a data gathering tool to assess state best practices and initiatives and during the fall they continued gathering responses; 26 have states responded so far. They also held their first State Diversity Leaders Forum, which provided "a space for diversity leaders in each state to come together and discuss best practices in promoting diversity in their respective insurance departments."

Workstream 3, diversity and inclusion related to P/C products, whose charges include developing analytical tools for state insurance regulators to use in defining, identifying and assessing unfair discrimination, including rating and underwriting variables. During the fall, Workstream 3 heard comments from interested parties on defining some of the terms in its charges; as a next step the workstream will be drafting a white paper on definitions. The Casualty Actuarial Society gave an overview of several papers it will be releasing in early 2022 that will: 1) define discrimination in insurance; 2) understand potential influences of racial bias on P/C insurance; 3) provide approaches to address racial bias in financial services, including lessons learned for the insurance industry; and 4) assess methods for quantifying discriminatory effects on protected classes in insurance. Workstream 3 believes this guidance will be helpful in developing its white paper.

Workstream 4 is considering analyses of access and affordability, focusing on marketing, distribution, and access to life insurance products and the role of financial literacy. Although they did not hold a public meeting in 2021, Worksteam 4 met in a regulator only session this fall to discuss the need for identifying data that already exists or is needed going forward to address the issues in its charges and plans to have a public meeting in early 2022 to further develop a work plan.

The charges of Workstream 5, D&I initiatives related to the health industry, include continued analysis of measures to advance equity. During the fall, Workstream 5 focused its meetings on finalizing its draft principles for data collection best practices document "to establish consistent high-level guiding principles for the collection and treatment of data on race, ethnicity, and other demographic characteristics in the business of health insurance." The Workstream 5 chair reported during the Fall National Meeting that one consistent theme from commenters was that "robust data collection is a key to both quantifying existing disparities and evaluating the effectiveness of initiatives to address those disparities." To address this

conclusion, high-level principles to guide in the collection, maintenance, protection and reporting of enrollee demographic data has been included in the data collection document.

Subsequent to the Fall National Meeting, Workstream 5 held a meeting to hear final comments on the draft principles and subsequently adopted 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.

Group capital calculation

GCC 2021 trial implementation and possible GCC modifications — In summer and fall of 2021, the GCC Working Group conducted a trial implementation using 2020 data with 25 volunteer companies and their related lead states to identify any issues with the GCC template and instructions, in advance of the GCC calculation being implemented in 2022. The working group met in November to discuss the results of the trial implementation and related possible modifications to the GCC template and instructions, which were exposed for comment, and include the following:

- The trial GCC tested the calculation of the limitation for debt and included a stress scenario based on a 30% decline in available capital. Based on the feedback, the working group is proposing to remove this stress scenario and retain the current debt allowance limitation.

- There is currently a charge of 100% on the carrying value for non-risk sensitive foreign entities; the working group concluded the charge should be lower (~50%) or provide the option that insurers can calculate the requirement for those entities using the NAIC RBC formula.

- Industry representatives have suggested that the charge for asset management entities (i.e., either 2.5%, 5.0%, or 10% of 3-year average revenue) be replaced with the FINRA capital charge. NAIC staff researched this option and was not able to determine specifically how the capital requirements would be applied and have asked for additional information from the commenters.

- The working group discussed the issue of completion of Schedule 1 (listing of all entities in the Group) for entities that are ultimately excluded from the calculation. Currently, companies would still complete all the inventory information even if the entity is determined to not be included in GCC. Given that this could be onerous, there are some suggestions to have a more limited inventory completed for these entities especially given that the list should not be changing significantly over time since it is based on the risk profile of the company as opposed to the size of the company.

The process for annual updates to the template and instructions is proposed to be the same as for RBC modifications: structural revisions exposed by January 31 of the effective year and adopted by April 30 and instructional changes exposed by April 30 and adopted by June 30. The working group plans to meet in early 2022 to review comments on the exposed modifications and the process to approve changes.

State adoptions of the GCC – Three new states, California, Illinois, and Nevada, adopted the GCC requirements in their statutes this fall, bringing the total to six states. (These adoptions also include the liquidity stress test framework requirements.)

Financial Analysis Handbook revisions – The GCC Working Group re-exposed for comment in September proposed changes to the Financial Analysis Handbook, which include a "primer" on the GCC formula, discussion of the role of the GCC in financial analysis, use of the GCC in lead state's responsibilities, considerations of the ability of the group to raise capital, and a detailed five-step process for reviewing the filed GCC. The revised guidance was adopted this fall by the GCC Working Group and the Examination Oversight Task Force and will be included in 2022 Financial Analysis Handbook.

Process for Evaluating Jurisdictions that Recognize the GCC – As specified in the adopted GCC requirements, an insurance group headquartered outside the U.S. (and which is not located in a Reciprocal Jurisdiction) is exempt from the GCC if its group-wide supervisor "recognizes and accepts" the GCC for U.S. groups doing business in that jurisdiction. In November, the Mutual Recognition of Jurisdictions Working Group adopted its revised draft Process for Evaluating Jurisdictions that Recognize and Accept the Group Capital Calculation. The document was also adopted by the full NAIC during the Plenary session in San Diego.

Innovation, cybersecurity, technology, and privacy initiatives

The newly renamed Innovation, Cybersecurity and Technology Task Force discussed multiple issues around the use of technology within the insurance industry, as well as concerns on the use of data related to that technology. The task force heard an overview from the Colorado Insurance Commissioner on a recently passed Colorado State Senate Bill (CO SB 21-169) which provides regulations to restrict the use of consumer data by insurers to protect the privacy of consumers as well as remove opportunities for discrimination based on that information. The bill requires insurers to stress test their big data systems and take corrective action to address consumer harms identified and is applicable broadly across the insurance industry. While the law is Colorado-specific currently, many other states have been researching similar protections for consumers across insurance and other data heavy industries.

Big Data and AI Working Group – The working group reviewed the results from the survey sent to private passenger automobile insurers to better understand their use of artificial intelligence (AI) and machine learning (ML). Most respondents (nearly 90%) reported using machine learning/AI and provided additional detail on where the information is used (business area/types of model/use of third-party tools). The working group plans to further evaluate the data to determine potential next steps, including what data can be made public. The working group also determined that it would move forward in surveying homeowners and life insurance business lines to gain additional insights.

Privacy protections – The Privacy Protections Working Group adopted the final exposure draft of its Report on Consumer Data Privacy Protections following brief final edits at the Fall National Meeting. The report sets forth the minimum consumer privacy protections that are appropriate for the business of insurance, after taking into consideration the consumer privacy protections that already exist under applicable state and federal law. At the subsequent meeting of the Market Regulation and Consumer Affairs (D) Committee, the committee received the report for further review and discussion.

The report identifies the following privacy protections for consumers as critical: (1) the right to opt out of data sharing, (2) the right to limit data sharing unless the consumer opts in, (3) the right to correct or delete information, (4) the right of data portability, (5) the right to restrict the use of data, (6) the right of data ownership, (7) the right of notice, and (8) the right of nondiscrimination and/or non-retaliation. Moving forward, the working group intends to examine state regulatory protections for consumers and potential changes to the NAIC models to ensure alignment with privacy protection standards related to insurance transactions.

Accelerated underwriting – The Accelerated Underwriting Working Group met in December to discuss comments on the latest draft of the Accelerated Underwriting Educational Report. The working group's charge 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 summarizes what the working group has learned about accelerated underwriting practices and makes recommendations for regulators and insurers.

Recommendations for insurers include ensuring data inputs are transparent, accurate, reliable, and the data itself does not have any unfair bias, ensuring models and algorithms that use the data are not unfairly discriminatory and that the intended outcome is defensible, explainable, and verified with post-issue audits, protecting consumer privacy and data, and establishing a process to remediate mistakes in the model input and output. The recommendations for regulators include review of the life insurer's underwriting practices,

guidelines, and use of data, requesting and reviewing data source information and explanations provided to consumers for negative actions, consider the extent to which data elements correlate to applicant risk and how a predictive model or algorithm will be used, and consider requiring the filing of models used to analyze the data.

At its meeting in December, the working group heard comments from various stakeholders. Themes included language suggestions to balance the tone (suggesting education over advocacy), clarifications to definitions, concern about use of data sources that are not scientifically tested or may have evidence of racial bias, and shortcomings of market conduct examinations to ensure companies' use of accelerated underwriting algorithms meets all the stated regulatory goals, and general caution regarding over generalization. The working group plans to revise the report and expose it for another public comment period prior to the 2022 Spring National Meeting.

Statutory Accounting Principles Working Group

Significant actions taken by the SAP Working Group during its November and Fall National Meetings are summarized below. (Appendix A to this Newsletter summarizes all actions taken by the working group and the status of all open projects.) Comments are due February 18.

Newly adopted guidance

SSAP 43R, residual tranches (#2021-15) – The SAP Working Group adopted proposed changes to SSAP 43R to clarify the treatment of residual tranches, which are characterized as "non-rated, first loss layers without contractual principal or interest." These instruments will now be reported on Schedule BA and valued at the lower of cost or fair value, effective for year-end 2022 (versus the proposed effective for year-end 2021). For 2021 reporting, these instruments may still be classified on Schedule D, but are required to be designated as NAIC 6. In addition, the Blanks Working Group exposed for comment new reporting lines specific for these investments on Schedule BA (2021-21BWG).

Credit Tenant Loans (#2021-11) – As part of its joint work with VOS Task Force on CTLs, the SAP Working Group did the following: 1) nullified INT 20-10, Reporting Nonconforming CTLs, 2) disposed item #2020-24 on CTLs with no statutory revisions, and 3) adopted revisions to SSAP 43R to explicitly identify the SVO-identified CTLs in scope of SSAP 37, Mortgage Loans. Revisions clarify that the application of the structural assessment to identify CTLs only applies to direct mortgage loans reported on Schedule B. The revisions adopted for the SVO P&P Manual by the VOS Task Force state that a security "which resembles a CTL but is not in scope of SSAP 37 can be filed with the SVO for an NAIC Designation and, if appropriate, the SVO can apply the CTL guidelines to its review."

Policy Statement terminology change (#2021-14) – The regulators adopted a proposal to revise the terminology when considering changes to statutory accounting from "substantive" and "nonsubstantive," to "new SAP concepts" and "SAP clarifications." This change in terminology is meant to avoid possible future misunderstandings (e.g., that use of the term "nonsubstantive" was not meant to imply that a proposed change would not be material to some companies). The change will be implemented going forward and prior determinations of substantive vs non-substantive will not be revised.

SSAP 55, loss adjustments expenses (#2021-13) – The working group adopted exposed nonsubstantive revisions to SSAP 55 to clarify that salvage and subrogation estimates and recoveries can include amounts related to both claims/losses and loss adjusting expenses (LAE). The corresponding estimates should be reported as a reduction of losses and/or LAE reserves.

TDR and Covid guidance – INT 20-03 (Troubled Debt Restructuring Due to Covid-19) and INT 20-07 (TDR of Certain Debt Investments Due to Covid-19) expired January 2, 2022. Industry representatives agreed with the working group that further extension of the guidance is not deemed necessary.

Significant exposures/discussions

Principles-based bond proposal project (#2019-21) – Since the Summer National Meeting, the SAP Working Group made significant progress on its project to consider what instruments should qualify as Schedule D, Part 1 bonds. In August the working group re-exposed its discussion draft, which included definitions of the two classes of bonds: issuer credit obligations and asset backed securities. The exposed document also provides additional definitional guidance, detailed examples of instruments that do not meet the definition of a bond, and discussion of what constitutes a "meaningful level of cash flows" and "sufficient" level of credit enhancement, including a practical expedient for "meaningful."

At the Fall National Meeting, the working group exposed two documents for comment, the more significant of which is a discussion document of possible reporting changes to Schedule D, Part 1. The proposal suggests the removal of the six general bond categories, replaced with a) 23 categories of Issuer Credit Obligations, b) 12 categories of Asset Backed Securities, and c) a new sub-schedule D-1 to capture individual investment detail for six categories of "Other Asset Backed Securities, both "non-self liquidating financial ABS" and "cash-generating non-financial assets not captured in the practical expedient." Initial ideas for disclosure for the new sub-schedule D include the following:

a. Balloon payment as a percentage of principal at acquisition
b. Current loan-to-value
c. Payment in kind provisions, whether payment of interest is deferrable and the amount of PIK interest
e. Expected payoff date determined at acquisition
f. Expected payoff date as of the financial statement date

The second exposed document is a proposal to revise the requirement for an asset backed security to have "substantive" credit enhancement, as opposed to "sufficient" enhancement as discussed above. Exposure of an issue paper (moving the principles-based bond project from a discussion draft to an official issue paper) could occur in the first quarter of 2022).

The working group heard a report from NAIC staff reiterating previous estimates of the "earliest possible effective date" of the package of accounting and report changes is 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, 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. The proposed new guidance could increase the number of entities that would be considered related parties, and investments issued by those entities would result in classifications as "related party investments." The exposed guidance includes the following:

> For entities not controlled by voting interests, such as limited partnerships, trusts and other special purpose entities, control may be held by a general partner, servicer, or by other arrangements. The ability of the reporting entity or its affiliates to direct the management and policies of an entity through such arrangements shall constitute control as defined in paragraph 6 [of SSAP 25]. For example, if a limited partnership were to be controlled by an affiliated general partner, and that limited partnership held greater than 10% of the voting interests of another company, indirect control shall be presumed to exist.

SSAP 61R, life reinsurance disclosure clarifications (#2021-31) – At the request of AICPA representatives, the working group exposed for comment proposed changes to revise the requirements for the life reinsurance disclosures that were first made in 2020 financial statements. The proposed clarifications include guidance that 1) if none of the disclosures are applicable, an "affirmative statement that no such contracts were identified is acceptable," 2) disclosure of risk limiting features would not apply to stop loss or excess of loss reinsurance agreements with deductibles or loss caps that apply to the entire contract, and

3) that only contracts in force at the end of the current calendar year need to be disclosed. The working group hopes to finalize the revisions during a conference call January 27, effective for year-end 2021.

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 its Fall National Meeting, in San Diego, the working group, at the request of both regulators and industry, 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. The exposure document notes that "if there is support for a fair value measurement approach for all derivatives, consideration of offsetting surplus adjustments for the fair value volatility, similar to what is permitted in SSAP 108, Derivatives Hedging Variable Annuity Guarantees, would be considered." Other specific topics that may be included in this project include partial term hedging, the "last of layer" hedge method, hedges of interest rate risk when the hedged item can be settled before scheduled maturity and expansion of excluded derivative components in assessment of hedge effectiveness.

Other projects on the SAPWG 2022 agenda – At the Fall National Meeting, the working group reviewed outstanding projects that they plan to resume discussion, which include the following:

- consideration of ASU 2016-13/CECL, including how to take AVR into account, since the reserve is held only by life companies,
- goodwill, including pushdown goodwill and goodwill held in entities which are multiple levels downstream from the insurance company. Since newly enhanced goodwill disclosures will be data captured in the 2021 statutory financial statements, NAIC staff plans to review the disclosure results before commencing discussion,
- derivatives hedging fixed indexed products (#2020-36) – the development of SAP revisions has been on hold as the working group is waiting on responses from LATF on reserving questions, and
- State ACA reinsurance programs (#2021-09) to provide accounting and reporting guidance regarding these ACA programs; NAIC staff plans to work with industry to develop principles-based guidance. A primary issue is that state ACA plans differ from both the former Federal program and from each other in various ways, which would cause adopting SSAP 107 for these plans difficult to implement.
- Retroactive reinsurance exception (#2019-49) – the Casualty Actuarial Task Force exposed for comment a presentation outlining issues and possible solutions; see the CASTF summary on page 19 for discussion.

Risk-based capital

All formulas

Formation of a new working group – The NAIC formed a new working group at the request of the Financial Condition Committee to review the significant number of investment-related proposals made to the regulators, which affect many areas of the annual statement and financial reporting. The new working group, the RBC Investment Risk and Evaluation Working Group, has been charged with performing a comprehensive review of the RBC investment framework for the three formulas, which could include "1) identifying uses of the formula that extend beyond its original purposes as documented in the Risk-Based Capital for Insurers Model Act, 2) assessing the impact and effectiveness of potential changes in contributing to the identification of weakly capitalized companies (i.e., those companies at action level), and 3) documenting the modifications made over time to the formulas."

During its first meeting January 12, the working group was asked to address a second significant project (as part of the SAP Working Group's bond project) to review the RBC treatment of asset backed securities, including collateralized loan obligations (CLOs), collateralized fund obligations (CFOs), or other similar securities with tail risk. The working group specifically asked for comments on the following:

- Methodologies for capturing the risk (including tail risk) that exists with such assets (e.g., ratings-determined bond factors, a modeling process akin to the current CMBS/RMBS approach, or other proposals),
- How a consultant could be used by the NAIC to determine the appropriate charge based upon certain data, and whether the consultant would be contracted by a third party (e.g., the ACLI) or the NAIC,
- Whether the Health and P&C RBC formulas should be as granular as the Life formula for these assets,
- Whether residual tranches in ABS structures can be evaluated in conjunction with and under similar methodologies as the debt tranches, and
- Specific proposals for addressing RBC treatment of residual tranches to reduce arbitrage incentives.

The chair outlined the "aggressive timeline" for the project proposed by the Financial Condition Committee, which includes selecting a consultant this winter, a methodology by the Spring National Meeting and adoption by year-end 2022. A working group member commented that this timeline should be viewed as an "aspirational goal." The request for feedback was exposed for comment until February 28.

Life RBC

2021 Bond Factor Changes – During the fall, the Life RBC Working Group adopted its *Guidance Document on Bond Factor Changes* to assist financial examiners and state regulators in their review of the results of 2021 RBC calculations for life insurers given the effects of the bond factor changes.

C-2 Mortality Risk – The Life RBC Working Group continued discussion of the AAA's C-2 Mortality Work Group to review the assumptions and methodology for life insurance (individual, industrial, group and credit life) mortality risk and finalize a proposal to revise the mortality risk factors. During its meeting in January the working group discussed comments received on the AAA's recommendations which were generally supportive of the proposal and focused on the determination of three new separate categories for ULSG, Whole Life and Term and adding sensitivities around the unknown sustained catastrophe risk component to account for uncertainties related to COVID (which are not yet included in the AAA proposal). The regulators exposed two options for structural updates for C-2 Life Mortality until March 7 (but without specific factors). Draft instructions for informational purposes were also exposed until April 30 (in the same document). The working group is still targeting a year-end 2022 implementation date.

Longevity risk – The LRBC Working Group adopted for 2021 RBC a proposal to implement a separate charge for longevity risk. However, longevity reinsurance contracts were specifically excluded from the scope of C-2 longevity risk given the need for more discussion. Longevity reinsurance is specifically included in scope of the AAA's VM-22 proposal for PBR for fixed annuities. The working group discussed comments and observations from the AAA on how "reserve aggregation, as included in the VM-22 draft, could facilitate a simple approach to including longevity reinsurance in C-2 using the same factors that currently apply to other fixed annuities.

Asset Valuation Reserve for Bond Factor Changes – The working group is continuing to work on updates to the AVR factors, which are necessary as a result of the 2021 bond factor revisions and expansion to 20 rating categories.

P/C RBC

Catastrophe risk – After years of studying wildfire risk and various catastrophes models for estimating that risk, the Catastrophe Risk Subgroup exposed for comment until February 13 a proposed "informational only" risk charge for wildfire peril for 2022 RBC filings. (The calculated charge would not be part of the "official" RBC ratio.) Consistent with the R3 charges for hurricane and earthquake risk, the charge is 1.0 applied to modeled losses; insurers with wildfire exposures must calculate modeled losses using one of the NAIC's approved third party commercial vendor catastrophe models (AIR, RMS, or KCC) or a catastrophe model internally developed by the insurer and which has received permission by the lead or domestic state to use that model. 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.

During 2022, the subgroup will be considering adding flood peril to the Rcat component of P/C RBC.

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. At the Fall National Meeting, 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 based on only the following: premium and reserve ratios equaling or exceeding 95% for both the reporting year and the prior year. Both the working group and the ad hoc group will be reviewing comments on the proposal during their meetings at the end of January.

The Blanks Working Group is deliberating significant revisions to the Life and P/C annual statements for year-end 2022 to gather additional health data already captured in the Health blank. See that summary on page 12 for additional discussion.

Investment income in health underwriting factors – The working group adopted proposal 2021-18-H to incorporate guidelines for the working group to follow in updating the investment income adjustment in the underwriting risk factors for Comprehensive Medical, Medicare Supplement and Dental & Vision. The working group will evaluate the yield of the 6-month Treasury bond as of January 1 of each year and determine if further modifications to the 0.5% adjustment are needed.

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 August 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. One proposed change to the Financial Analysis Handbook is to "consider whether additional examination procedures should be recommended to verify/validate information reported on affiliated services or to further evaluate the fairness and reasonableness of expense allocations."

During its meeting in November, 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 regulators agreed to defer adoption of the guidance and form a drafting group with interested party volunteers to study the issues further. The drafting group is expected to have a call in early 2022.

Valuation of Securities Task Force

The task force had significant activity with the adoption and discussion of the following items.

Rating issues and proposed changes to the Filing Exemption process
During the Fall National Meeting, the task force discussed a memo from the SVO staff on concerns around privately rated 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 SVO staff conducted an in-depth review of a sample of privately rated securities where they rely on CRP ratings, which resulted in 43 securities having NAIC Designations that differed significantly from the staff's analysis (by as much as 3-6 rating notches under the new 20 rating class methodology). The SVO's Director stated that their concerns have only increased as there has been a substantial increase in the number of privately rated securities over the past few years.

The SVO's Director recommended that the task force consider at least four alternatives to address this issue:

- Require at least two (or more) CRP ratings for every security and use the lowest rating to determine the NAIC Designation,
- Conduct an in-depth study of the NAIC's use of CRP ratings and SVO-assigned NAIC Designations as to their consistency and comparability,
- Put the CRP process under a contractual relationship by offering NRSROs the opportunity to respond to a request for qualifications, and
- The VOS Task Force can instruct the SVO to remove any rating agency from the CRP list at any time

During the Fall National Meeting, the task force supported forming a small study group to begin this effort, which the regulators agree should be a "careful and collaborative approach" by looking at different methodologies for different asset classes. The chair of the task force received the Director's six-page report but did not expose it for comment. However, the chair stated that the task force will use the report "as a basis for beginning discussions in 2022" and he encouraged feedback from interested parties.

P&P Manual amendment adoptions
Amendment to the P&P Manual to Add Zero-Loss Criteria for Legacy-Modeled RMBS and CMBS
In response to an industry request, the SVO's Structured Securities Group agreed to a phased-in approach for financially modeled RMBS and CMBS and will continue for 2021 with the existing six price breakpoints to determine an NAIC Designation with the result mapped to the mid-point of the NAIC Designation Category, as was done for year-end 2020. SSG plans to move to the twenty price breakpoints for year-end 2022. During the fall, the task force adopted a proposed P&P amendment to revise guidance that "zero-loss" financially modeled RMBS and CMBS securities will be mapped to NAIC Designation Category 1A for year-end 2021, which is a change from the 1.D rating used for year-end 2020.

Private Rating Letter Rationale Reports – While the new requirement to file "private letter rationale reports" with the SVO became effective January 1, 2022, there is a two-year transition period for acquisitions after January 1, 2022 and an exemption for securities issued prior to 2018. For private letters securities issued after January 1, 2022, where the insurer cannot provide a copy of a private rating letter rationale report, they can report them as a PLGI security until December 31, 2023, after which if they still

cannot provide a copy of the report the securities must be reported as a NAIC 5GI. During the fall, the task force adopted an amendment to the P&P Manual to clarify that 5GI maps to a 5.B which has an RBC charge of 10.9% for PC and 23.798% for life companies.

Bank loans – During the fall, the task force adopted an amendment to align the P&P Manual and AP&P Manual to clarify that the SVO can assess and assign NAIC Designations to bank loans in scope of SSAP 26R and that the filing instructions and methodology would follow that of other corporate obligations.

Significant exposures (comment period ending February 11)
Principal protected security (PPS's) - Previously the task force adopted a significant amendment to revise the definition of PPS's and remove this class of security from eligibility for filing exemption. During the Fall National Meeting, the SVO received a proposal to expand the definition for a security type which poses the same risks as a PPSs but is not issued by an SPV holding both the underlying bonds and the performance assets. The security was an issuer obligation of a financial institution whose obligation it was to pay principal at maturity and a premium based on the performance of a referenced index and an index of other financial assets. VOSTF exposed a revised definition that would also include such issuer obligations.

Schedule BA assets with underlying characteristics of a bond or other fixed income instrument – During the Fall National Meeting, 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. The amendment also includes a required documentation section which is expected to be "very similar" to the requirements for a Schedule D asset.

Blanks Working Group

The working group met in November and December and discussed the following significant items.

- Adopted a proposal to expand the number of lines of business reported on Schedule H - A&H Exhibit to match the lines of business reported on the Health Statement to create uniformity in the A&H lines on Schedule H with other schedules and exhibits in the annual statements (2021-14BWG Modified).
- Withdrew a proposal to revise the Analysis of Operations by Lines of Business - A&H for entities filing the Life Annual statement (2021-12BWG). This proposal was replaced by 2021-17BWG discussed below.
- Rejected a controversial proposed new supplement, Direct Premiums and Exposures, to the P/C Annual Statement to capture "direct exposures written" and "direct exposures earned" data for homeowners, private passenger auto no fault, private passenger liability and private passenger physical damage lines (2021-11BWG). The working group rejected the proposal due to comments received that the data is not necessary for solvency regulation and is not needed by financial analysts.

The working group also exposed (or re-exposed) for comment the following significant proposed revisions that have a comment deadline of March 4, which are proposed effective for year-end 2022, except for 2021-18BWG, which is proposed for year-end 2023.

- Add a new supplement to the P/C Annual Statement (due March 1) to capture nine 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 for a proposed year-end 2022 implementation. The supplement would apply to direct business only (2021-13BWG Modified)
- Add a footnote to Exhibit 7 in the Life and Health 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 (2021-15BWG)

- Add the Health Blank Analysis of Operations by Lines of Business as a supplement to the Life statement to capture those data points for life insurers writing health business, which would allow regulators to look at revenue and expenses in the same detail as reported in the Heath A/S (2021-17BWG)
- 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 (2021-18BWG)
- Add new electronic columns to capture investments issued by a related party or through a related party transaction, regardless if it meets the affiliate definition or if there is a disclaimer of affiliation or control, which will also include information involving securitizations where the related party is a sponsor or originator and whether the underlying investment is in a related party (2021-22BWG)

Financial Stability Task Force

FSOC Developments
At the Fall National Meeting, the chair gave an update on the activities of the U.S. Treasury's Financial Stability Oversight Council, which has been recently focused on climate-related financial risk. In October, FSOC issued a special paper entitled Report on Climate-related Financial Risk on its member agencies' efforts to integrate consideration of climate-related financial risk into their policies. See the summary of the Climate and Resiliency Task Force on page 14 for additional discussion.

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 is a result of public discussions at the Financial Stability Task Force and regulator-only discussions of the working group. At the September meeting of the task force, the NAIC's Capital Market Bureau reported that their research showed that 177 insurers are now owned or controlled by private equity, and these companies invest "far more" in asset backed securities than the insurance industry as a whole (25% vs 10%), which has regulators concerned about the complexity of these investments.

The Regulatory Considerations of PE-Owned Insurers paper discusses various risks posed by ownership of private equity (but also includes the following disclaimer: "most of these considerations are not limited to PE owned insurers and are applicable to any insurers demonstrating the respective activities").

- Risks due to structuring of agreements to avoid regulatory disclosures or requirements,
- Terms of investment management agreements with PE-affiliated entities, whether they are at arm's length and termination provisions,
- Operational, governance and market conduct practices that are influenced by different priorities and level of insurance industry expertise,
- Lack of identification of related party-originated investment (which is being addressed by the SAP Working Group; see discussion of issue #2021-21 on page 6 above),
- Material increases in investments in privately issued structured securities and the level of reliance on rating agencies (which is being addressed by the Valuation of Securities Task Force as discussed on page 11 above),
- The increase in life insurers assumption of risk from pension risk transfer business (which is being discussed by the Life Actuarial Task Force; see page 17), and

- Insurers' use of offshore reinsurers

The Macroprudential Working Group is meeting February 1 to discuss comments to the Considerations paper.

Liquidity Stress Test Framework – In 2021, the Financial Stability Task Force adopted its Liquidity Stress Test Framework, 2020 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. During its Fall National Meeting, the task force heard a summary of the results of the 2020 filings made in 2021, concluding that the insurance industry "has a strong liquidity position, which helps to avert significant asset sales even in worst case scenario models." Other observations included that insurers' own worst-case scenarios resulted in the largest amount of modeled assets sales, and that modeled asset sales compared to average daily trading volumes of those assets "suggest minimal, if any, impact to capital markets under the most stressful scenarios, which was the primary macroprudential consideration of the liquidity stress test."

Climate risk

Climate Disclosure Workstream – The Climate Risk Disclosure Workstream is proposing to revise the NAIC Climate Risk Disclosure Survey to align it to the Financial Stability Board's (FSB's) Task Force on Climate-Related Financial Disclosure (TCFD) and, in addition, include insurance-specific questions. The proposed survey questions, exposed for comment in November, provide an option for a narrative response, as well as certain sections that include questions that are closed-ended, yes or no, or multiple-choice. The Disclosure Workstream is meeting January 26 to review comments on the proposed survey; ten comment letters have already been posted to the Climate and Resiliency Task Force's webpage. The task force hopes to have the revised disclosure survey effective for 2022 filings.

Catastrophe Modeling Center of Excellence – The task force had previously exposed for comment 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. The purpose in creating this group would be to formalize the methods for insurance regulators to gain insight around catastrophe modeling and to help better understand the preparation for future climate changes and extreme weather events. The task force hopes to adopt the formation of Catastrophe Modeling COE in early 2022.

Federal Activities Update – President Biden's May 2021 executive order on climate-related financial risk mandated a range of federal studies to analyze the risks climate change poses to the U.S. financial system and lays the groundwork for eventual policy changes. The order directed the Federal Insurance Office to assess climate-related issues or gaps in insurance supervision and the potential for major disruptions of insurance coverage in regions of the country particularly vulnerable to climate-related impacts. In October, the Financial Stability Oversight Council (FSOC) released its Report on Climate- Related Financial Risk, which included several policy recommendations to update existing regulations, build capacity and expand efforts to address climate-related financial risks, fill data gaps, enhance public climate-related disclosures, and assess climate-related risks to the financial stability of the federal government and the U.S. financial system. FSOC intends to form two new committees to help financial regulators better understand climate-related risks.

The U.S. Securities and Exchange Commission remains focused on climate risk disclosure. SEC Chair Gary Gensler directed SEC staff to develop a mandatory climate risk disclosure proposal for the Commission's consideration in the first part of 2022.

Restructuring Mechanisms Working Group

For several years, the Restructuring Mechanisms Working Group has been developing a white paper to summarize the various industry wide processes for insurance companies to restructure liabilities with finality, mainly through the use of two various types of transactions: insurance business transfer (IBT) and corporate division (CD). The working group's goal is to develop a white paper that analyzes the various statutorily available processes (given the differing laws and regulations by state) and update prior NAIC papers on the subject but is not intended to define the NAIC's preferred position on the matter. The working group met in December to evaluate comments received on its October 2021 draft white paper.

Comments from multiple stakeholders including industry groups, regulators, professional services firms, and insurance companies focused on the following main themes, which will be taken up for consideration by the working group as they continue to review the draft white paper:

- Regulatory review - The need for a robust review regulatory process to ensure stakeholders are not adversely impacted by the transactions. Multiple letters highlighted prior experience or knowledge of the regulatory and court review process under the United Kingdom Financial Services and Markets Act 2000 (FSMA) Part VII and encouraged the working group to quickly develop the necessary accreditation standards to match Part VII.

- Consumer protection - Multiple comments highlighted the need to keep the best interests of policyholders in mind, and that substitution of a new insurer for the client's chosen insurer, without consent, is a significant event that needs to be approached with "great respect" and to ensure continued solvency to protect consumers.

- Project scope - Additional comments noted the need to clarify the scope of the white paper and specifically whether long-term care insurance is eligible for a corporate division or insurance business transfer. While many regulators noted they would not consider an LTCI transaction, there was agreement that there are not uniform regulations in place across various states on the matter and it would be investigated.
- Relationship with guaranty funds - Respondents encouraged the NAIC to ensure alignment with guaranty fund model guidance, noting it was important to understand the impacts on guaranty funds and enact changes to that guidance immediately if needed.

Group Solvency Issues Working Group

The working group reviewed comments received on the recently re-exposed revisions to the NAIC's Financial Analysis Handbook, which are intended to incorporate elements of the IAIS' Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame) deemed appropriate for the U.S. system of solvency regulation. The comments from industry groups focused on concerns related to language referencing the IAIS' insurance capital standard (ICS) in the updated draft, primarily around the suggestion that the ICS "may assist supervisors in ongoing risk assessment." The working group agreed to remove the references to the ICS in relation to the risk assessment.

The working group noted two drafting groups have been meeting to develop proposed revisions to the NAIC's Financial Condition Examiners Handbook and ORSA Guidance Manual to incorporate ComFrame elements, as deemed appropriate, for the U.S. regulators. Both groups plan to complete their initial drafting efforts in the first quarter of 2022. The working group intends to adopt the proposed ComFrame revisions to all three NAIC publications together as a package later in 2022 once all publications have been fully developed and vetted.

Reinsurance Task Force

At the Fall National Meeting, the task force adopted the *ReFAWG Review Process of Passporting Certified and Reciprocal Jurisdiction Reinsurers*; the document was created to "aid in the implementation process of the 2019 revisions to Credit for Reinsurance Model Act (#785) and Regulation (#786) and to clarify the processes for the passporting of certified reinsurers and reciprocal jurisdiction reinsurers." The guidance was also adopted by the full NAIC at the Plenary session in San Diego.

The task force reported that the Qualified Jurisdictions Working Group recently reapproved the status of Bermuda, France, Germany, Ireland, Japan, Switzerland and the UK as qualified jurisdictions and Bermuda, Japan, and Switzerland as reciprocal jurisdictions.

The task force heard a report on the status of the adoption of reinsurance-related model laws ahead of the required date of the Covered Agreement of September 1, 2022. There has been significant progress in adoption of the revised Credit for Reinsurance Model Law and Regulation; as of January 5, 46 states have adopted the Model Law, with only DC, NJ, WI and USVI pending, and 26 states have adopted the revised Model Regulation with 10 pending. The Term and Universal Life Insurance Reserve Financing Model Regulation (#787) has been adopted by 8 jurisdictions, with another 10 jurisdictions with action under consideration. The goal of the NAIC is to have all jurisdictions adopting the models by July 1, 2022.

Principles-based reserving

Valuation Manual amendments
During LATF calls held between the 2021 Summer and Fall National Meetings several APFs and related guidance were discussed, exposed and/or adopted, the most notable being the following:

Adopted guidance
APF 2021-12 clarifies in VM-21, Requirements for Principle-Based Reserves for Variable Annuities, the requirements for variable annuity contracts with no minimum guaranteed benefits under three prescribed assumptions in VM-21 Section 6C.

APF 2021-13 introduces new VM-20 Section 9.C.6.e that requires companies to derive and use margins that produce an appropriately conservative result when the prescribed margins produce a decrease in the modeled reserves. Regulators observed instances when adding the prescribed mortality margins for some Life/Long-Term Care combination products caused modeled reserves to decrease due to the offset that the higher mortality had on the LTC benefits. In such instances companies will need to derive margins that do not cause the modeled reserves to decrease.

HMI 2021 Scale – The SOA Historical Mortality Improvement 2021 Scale uses the same basis as that applied historically. There is no change to the female scale, but there is a decrease in the male scale. The SOA recommends that companies reflect their expectations for COVID-19 impacts on short-term mortality as part of a temporary mortality adjustment.

Exposed guidance
APF 2021-11 proposes changes to introduce a new section in VM-21 to provide general guidance and requirements for assumptions, similar to VM-20, to address assumption reporting issues identified in VM-21 PBR report reviews. Proposed changes also introduce 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. VM-21 is not as explicit as VM-20 about expenses, and regulators are concerned companies may understate expenses if they are not considered appropriately in the modeling. Industry comments are generally supportive of the guidance but raised questions to clarify requirements around sensitivity testing and margin analysis. LATF members discussed the comments on the initial exposure, revised and re-exposed the APF for comment.

Future exposure

Future mortality improvement assumption – In December, LATF members heard an update from the Mortality Improvements Life Working Group of the Academy Life Experience Committee and the SOA Preferred Mortality Project Oversight Group on the development of future mortality improvement (FMI) scales that could be applied under APF 2020-10, which allows application of a prudent assumption for mortality improvement beyond the valuation date, beginning with the 2022 Valuation Manual.

The proposed framework would allow for both basic ("best-estimate") and loaded ("with margin") FMI scale factors, which vary only by gender and attained age, to be applied for up to 20 years beyond the valuation date. The development timeline calls for final scales to be presented to LATF for exposure by June 30, with adoption and publication by September 30. (The scales will be set annually, but not necessarily updated if experience indicates the current scales remain appropriate.) No further action was taken and discussion on this topic will continue on a future LATF call.

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 approved a request to the SOA and AAA to develop rates for structured settlement mortality, but otherwise did not meet 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. Several comment letters were received, which are posted on the VM-22 Subgroup webpage. The subgroup plans to discuss the comments beginning in January, with the goal to have a second exposure ready for summer 2022.

The Standard Projection Amount (SPA) Drafting Group, which was formed to explore the feasibility of creating a SPA using methodology consistent with VM-21, is focused on determining the associated prescribed assumptions. Separate subgroups within the drafting group have focused on mortality assumptions (relying heavily on the SOA and AAA for guidance) and contract holder behavior assumptions. Mortality assumptions will be established for four product categories: structured settlements, other individual payouts, group annuities and pension risk transfer, with the short-term goal to develop factors to apply to existing basic tables for use in field testing and a long-term goal to establish a process for how these assumptions will be determined going forward. Timing of the VM-22 field test and implementation of VM-22 were previously reported as May 2022 and January 1, 2024, respectively. Revised timing was not discussed; however, the field test will likely be delayed because it depends on the timing of the ESG field test, which may be delayed as noted below.

Life Actuarial Task Force

Actuarial Guidelines

AG 25 (adopted) - Revisions to *Actuarial Guideline XXV—Calculation of Minimum Reserves and Minimum Nonforfeiture Values for Policies with Guaranteed Increasing Death Benefits Based on an Index* (AG 25) were adopted to remove the fixed 4% nonforfeiture rate floor and align the guideline with the VM-02, Minimum Nonforfeiture Mortality and Interest, changes implemented for the 2021 Valuation Manual. These revisions were also adopted by the full NAIC at the Plenary session in San Diego.

Possible new Actuarial Guideline on AAT (exposed concept) - In September LATF members discussed development of an actuarial guideline focused on modeling of complex or high-yielding assets in asset adequacy testing. The potential need for additional guidance emerged from discussion within the Valuation Analysis Working Group and concern about under-reserving in the current low interest rate environment for acquired blocks of legacy deferred annuity products with 3% or higher lifetime interest guarantees.

Regulators noted that recent transactions related to this business, particularly the rapid entry of private equity firms into the life insurance business as owners of life insurers and through acquisition of fixed

annuity blocks, have resulted in increased concentration of these risks held by firms that support the risks with non-traditional assets. Exposure to solvency risk increases as the assets held become more complex and are less subject to publicly available valuation.

Regulators have also observed variations in modeling practices and the extent of documentation in asset adequacy testing memorandums around the assumptions associated with these more complex assets and seek to ensure that all key risks are appropriately addressed in modeling techniques and greater consistency in documentation and appointed actuary considerations around increased asset complexity.

LATF members unanimously supported exposure of an initial concept document and during their Fall National Meeting discussed comments on the initial exposure. Industry responses are largely supportive of the need for additional guidance, and the LATF discussion focused on questions related to product scope, size scope, pros and cons of establishing modeling constraints or requiring increased documentation and sensitivity testing, and the potential effective date.

The consensus among regulators, industry representatives and interested parties is that the scope likely includes all products and liabilities with significant investment risk, and that guidance is needed for year-end 2022. Regulators noted that insurers shall be "on-notice" for 2021 and that regulators will expect robust support for asset assumptions that can be viewed as optimistic. Discussion around potential requirements for modeling constraints and documentation indicated more input is needed, and a second concept document was exposed for comment, specifically requesting feedback on the following issues:

- Types of documentation in an asset adequacy testing memorandum that would address the various risks associated with complex assets,
- Types of constraints that may be helpful to address concerns regarding inconsistency in modeling practices associated with complex assets in asset adequacy testing to ensure appropriate consideration of all key risks, and
- Role of the Appointed Actuary when the insurer has experienced a "substantial increase in asset complexity potentially supporting actuarial reserves."

Other LATF Activity

Economic Scenario Generator implementation project
At the Fall National Meeting, LATF heard an update from the ESG Drafting Group on recent activity. The discussion began with remarks from the LATF chair regarding the timeline, noting that while implementation in 2023 does not seem likely, work on this initiative should not decelerate but should remain steady to ensure adoption for the 2024 VM and that the new ESG would be available for the VM-22 field test. Adoption for 2023 would require completion of the ESG field test in April or May 2022, as well as drafting, exposure, and adoption of VM edits by July, which LATF does not believe is achievable.

The ESG Drafting Group provided an update on calibration of the Treasury Model and key decisions for the equity and corporate models. Conning has completed calibration of the GEMS Treasury Model and provided an associated set of scenarios for consideration by the drafting group. Following approval by the drafting group, the treasury scenarios will be discussed in a public meeting of LATF members and the Life RBC Working Group. Key decisions for the equity model include the relationship between equities and Treasury rates, risk/return relationships for and between different equity indices, and equity rate responses to changes in initial market conditions.

The primary decision for the corporate model is the desired level of complexity. The GEMS corporate model can produce bond fund returns that reflect various dynamic components, and greater effort will be required for Conning to develop a new simplified corporate model if desired by regulators.

Index-Linked Variable Annuity Subgroup
The subgroup met in November to consider exposure 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.

In order to clarify the applicability of these model regulations to ILVA products, the proposed guideline provides conditions under which a non-unit-linked product can be considered to provide values that vary according to the investment experience of a separate account, and therefore be considered a variable annuity under Model #250 and exempt from Model #805. The subgroup provided a formulaic approach to calculate the nonforfeiture value based on the calculation of a hypothetical portfolio, which is designed to replicate the index option value pay-off. The hypothetical portfolio is calculated with market consistent assumptions and needs to be calculated at a seriatim level.

Concerns with the proposed guideline were expressed by ACLI representatives, who commented that the proposed guidance is more prescriptive than principles-based, and that the guidance will disrupt marketplace product design with a shift from spread-based to fee-based products, as any explicit charges deducted at the beginning of the index term would likely decrease the hypothetical portfolio value. The subgroup exposed the proposed ILVA Actuarial Guideline for comment until January 27.

Indexed Universal Life (IUL) Illustration Subgroup
The subgroup had not met since the Summer National Meeting but has conducted market research and reviewed illustrations following implementation in December 2020 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). AG 49-A was established to prevent insurers from illustrating products with enhancement features (e.g., multipliers, cap buy-ups) more favorably than products without such enhancement features. Products with enhancement features were identified as an issue following several years of variation in IUL illustration practices after the adoption in 2015 of *Actuarial Guideline XLIX—The Application of the Life Illustrations Model Regulation to Policies with Index-Based Interest* (AG 49), which eliminated the favorability of illustrating exotic indices.

Regulators have observed that while IUL illustrations post-AG 49-A have shown lower credited rates and related values than observed prior to AG 49-A, increased use of volatility-controlled funds, which rebalance between equities and fixed income as equity volatility fluctuates, may not have lowered illustrated rates and values as much as contemplated when AG 49-A was adopted. Uncapped volatility-controlled funds may perform better than capped S&P 500 funds, and regulators have found that some insurers may use this result to support more favorable illustrations through a reduced hedge on the upside potential and a fixed bonus to the policyholder funded with the excess hedge budget. Regulators seek input on whether and how to address the issue in early 2022; a document summarizing the issue was exposed for comment until February 4.

Casualty Actuarial and Statistical Task Force

In 2019, the SAP Working Group asked the Casualty Actuarial and Statistical Task Force to review the accounting and reporting guidance for retroactive reinsurance contracts that are accounted for as prospective reinsurance when they meet the intercompany reinsurance exemption. The request (#2019-49) was in response to inconsistencies in application of the accounting and reporting guidance, especially with respect to the Schedule P reporting. During its December meeting the task force exposed for comment a presentation summarizing the issues and possible solutions, which could be developed into a specific proposal.

- Add explicit guidance in the Schedule P instructions for the exceptions listed in SSAP 62R, paragraph 36 that don't qualify for prospective accounting (structured settlements, commutations, and qualifying run-off agreements),
- Discuss whether paragraph 37 of SSAP 62R is overly punitive because it requires a ceding company to nonadmit any deposit paid and receive no credit for reinsurance ceded for intercompany retroactive reinsurance agreements that would result in an initial gain to the ceding company, and
- Within SSAP 62R paragraph 36d which defines exceptions to the general policy, investigate potential changes including removal of prospective accounting requirement, expansion of the Schedule P interrogatories to provide more information to users, and potential specified methods to allocate premiums to prior years instead of reporting it all in the current calendar year.

One solution listed as "unacceptable" would be to classify the consideration paid as a positive paid loss by the cedant and a negative paid loss by assuming entity versus premium. NAIC staff believe the largest issue to address is whether to allocate premium back to prior years on Schedule P when multiple years of premium are ceded to a reinsurer, noting that regardless of which methodology is used, there will be distortions, and determining what will produce the most useful Schedule P information is a significant consideration. A response from the task force to the SAP Working Group is expected in the first quarter or second quarter of 2022.

Pharmacy benefit manager regulation issues

During the Summer National Meeting, the Executive Committee declined to adopt the Pharmacy Benefit Manager Regulatory Issues Subgroup's proposed Model Law Addressing Licensure or Registration of PBMs. The model law was meant to provide state insurance departments the authority to regulate PBMs rather than to regulate indirectly through the insurer. The motion to adopt failed due to the inability of states to reach a consensus viewpoint on how to properly regulate PBMs, and the white paper was sent back to the subgroup for further work.

During the Fall National Meeting, the subgroup heard presentations from Connecticut, Oklahoma, Virginia, and Wisconsin on how these states address PBM regulation and oversight. The subgroup will continue its discussions on its white paper in early 2022 where they will continue to 1) analyze and assess the role PBMs and other supply chain entities play in the provision of prescription drug benefits, and 2) identify, examine, and describe current and emerging state regulatory approaches to PBM business practices, such as price transparency and reporting requirements, and rebating and spread pricing.

Long-term care issues

Long-Term Care Insurance Task Force
During the Fall National Meeting the task force heard updates from its subgroups on their assigned projects.

Multi-state rate review practices – The goal of this workstream is to develop a recommendation for a consistent national approach to multi-state LTCI rate reviews. At the Fall National Meeting, the LTC Insurance Multistate Rate Review Subgroup heard final comments on its draft MSA Framework, made minor changes and adopted the MSA (Multi-state Action) Framework, which was subsequently adopted by the LTC Insurance Task Force.

The purpose of the framework is to provide an avenue for reviewing long-term care insurance rates that results in actuarially appropriate increases being granted by the states in a timely manner and eliminating cross-state rate subsidization. The MSA Framework is intended to communicate the governance, policies, procedures, and actuarial methodologies supporting the MSA Review. At the completion of the review, the participants will receive an MSA Advisory Report that provides both summary and detail information about

the rate proposal, the review methodologies, the analysis and other considerations of the team, and the recommendation for rate increase. Participating states will have the option to utilize the report or use it a supplement to the state rate increase filing. The MSA Framework will be considered for adoption by the Executive Committee and Plenary at the Spring National Meeting. In 2022, the subgroup will focus on implementation of the MSA Framework, which is expected to be fully operational by September 2022.

Reduced benefits options (RBO) – This subgroup is focused on information gathering of practices for the state regulatory review of reduced benefit options in lieu of premium increases, and consumer notices sent by companies. The subgroup will also evaluate whether reduced benefit options offered to consumers are fair and equitable. The subgroup has drafted a consumer notices checklist, aimed at a consistent approach to drafting and reviewing RBO communications. The checklist is considered best practice guidance, and not a requirement. Throughout the fall, the subgroup discussed comments received from regulators, the LTC insurance industry and consumer representatives on both the LTC Wellness Program Issues document and the RBO Consumer Communication Checklist and adopted the documents at its Fall National Meeting. The focus of the first paper is what companies should consider before implementing a wellness program, one company's experience with such wellness programs and lessons learned, and how to prevent unfair discrimination practices. These documents were then adopted by the task force.

International Insurance Relations Committee

The committee heard an update on international projects in process.

IAIS update
The IAIS is continuing its implementation assessment of the Holistic Framework which is being done in phases and will inform the Financial Stability Board's review of the effectiveness of the framework later in 2022 and expected to include an assessment of whether to continue with the G-SII process.

The Global Monitoring Exercise, another component of the Holistic Framework, was completed during the fall and the IAIS issued its 2021 Global Insurance Market Report. The exercise covered a defined scope of individual insurers and three sector-wide macroprudential themes: low yield environment and private equity ownership, credit risk and cyber risk. The IAIS also published its 2021 GIMAR special topic edition on climate-related risk and its targeted assessment of the impact of Covid-19 in its 2020 GIMAR special edition.

The IAIS recently published three papers, 1) Issues Paper on Insurer Culture; 2) Application Paper on Supervisory Colleges; and 3) Application Paper on Combating Money Laundering and Terrorist Financing. The International Insurance Relations Committee also discussed during the fall and adopted their comments on the IAIS' Public Consultation on the Development of Liquidity Metrics: Phase 2 that will serve as a tool to facilitate the IAIS' monitoring of the global insurance industry's liquidity risk.

The 2022 Spring National Meeting of the NAIC is scheduled for April 5-8 in Kansas City. 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 editor at jean.connolly@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 September 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	See discussion in the SAPWG summary above.	TBD
Principles-based bond proposal project – (#2019-21)	Exposed two new proposals	The working group exposed a package of possible reporting changes to Schedule D, Part 1 and a proposed requirement for asset backed securities to include "substantive" credit enhancement. See further discussion in the SAPWG summary above.	TBD
SSAP 62R – Retroactive Reinsurance Exception (#2019-49)	Exposed	The Casualty Actuarial Task Force exposed for comment a presentation summarizing the issues and possible solutions for the accounting and presentation of retroactive reinsurance contracts that receive prospective accounting. See the CASTF summary on page 19 for more details.	TBD
SSAPs 86 & 108 – Derivatives Hedging Fixed Indexed Products (#2020-36)	Discussion to resume in 2022	In 2021, the working group sent a referral to the Life Actuarial Task Force, seeking input regarding whether the task force would consider changes to the reserve framework of fixed annuity products. See the SAPWG summary for further discussion.	TBD
SSAP 107 – Affordable Care Act (#2021-09)	Discussion to resume in 2022	See the SAPWG summary on page 8 for discussion.	TBD
SSAP 43R – Credit Tenant Loans (#2021-11)	Adopted	See discussion in the SAPWG summary above for details on the adopted guidance.	December 31, 2021
SSAP 55 – Unpaid Claims, Losses and Loss Adjustments Expenses (#2021-13)	Adopted	The working group adopted exposed nonsubstantive revisions to SSAP 55 to clarify that salvage and subrogation estimates and recoveries should include amounts related to both claims/losses and loss adjusting expenses.	December 31, 2021
NAIC Policy Statement – Terminology (#2021-14)	Adopted	The SAP Working Group adopted clarifications to its terminology describing the types of revisions made to statutory guidance. See further discussion in the SAPWG summary above.	December 31, 2021
SSAP 43R – Residual Tranches (#2021-15)	Adopted	The working group adopted revisions to clarify that non-rated residual tranches shall be reported on Schedule BA – Other Long-Term Investments and valued at the lower of cost or fair value.	December 31, 2022

SSAP 6 – Amounts Due from Agents (#INT 21-02)	Adopted	The SAP Working Group adopted a temporary, optional extension to the "90-day rule" in SSAP 6 for polices impacted by Hurricane Ida (consistent with other nationally significant disasters). The temporary extension will be automatically nullified on January 24, 2022.	November 10, 2021
SSAP 30R – FHLB Disclosure (#2021-16)	Referral	The working group approved a request to the Blanks Working Group to capture information on FHLB funding agreements in Exhibit 7 – Deposit-Type Contracts, which was exposed by the Blanks Working Group as proposal 2021-15BWG. See BWG discussion above.	Year-end 2022 annual statements
SSAP 32R – Permitted Valuation Methods (#2021-17)	Adopted	Revisions remove a reference in paragraph 11.1.i of SSAP 32R that indicated that "historical cost" is an allowable valuation method.	December 31, 2021
SSAP 108 – VM-21 Scenario Consistency Update (#2021-18)	Exposed	Revisions to SSAP 108 were exposed to replace the term "VM-21 Standard Scenario" with "VM-21 Standard Projection" and add a footnote defining the Standard Projection. (An update to the December exposed revisions will be considered at the SAPWG's January 27 meeting.)	December 31, 2021
SSAP 86 – Effective Derivatives, ASU 2017-12 (#2021-20)	Discussion to resume in 2022	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)	Exposed	The working group is considering expanding the scope of related party investments. See SAPWG discussion above.	TBD
Schedule D-6-1 – Supplemental SCA Reporting (#2021-22)	Exposed	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 is suggesting that the following information be added to Part 6: prior year book adjusted carrying value, prior year nonadmitted amount, prior year Sub-2 filing verified value, and prior year VISION filing number.	TBD
SSAP 43R – Updated Financial Modeling Guidance (#2021-23)	Exposed	The working group exposed for comment two options for proposed revised guidance for SSAP 43R related to documenting the SVO's revised modeling guidance for RMBS and CMBS.	TBB
Cryptocurrency General Interrogatory (#2021-24)	Exposed	The working group exposed for comment a proposal to add a new general interrogatory to all annual statements, requiring disclosure of when cryptocurrencies are directly held or permitted for the payment of premiums. After adoption, the request will be referred to the Blanks Working Group.	TBD

SSAPs 19 and 73 – Leasehold Improvements after Lease Termination (#2021-25)	Exposed	Changes to SSAPs 19 and 73 are being proposed to add guidance that amortization of leasehold improvements should immediately end when a lease is terminated and any remaining, unamortized leasehold improvement balance should be immediately expensed.	April 2022
Editorial Updates (Substantive vs Nonsubstantive) (2021-26EP)	Exposed	To implement the SAPWG's new policy on replacing the terms "substantive and "nonsubstantive," (discussed on page 6 above), the working group exposed for comment proposed revisions to relevant policy sections of the APP Manual.	April 2022
Proposed rejection of new GAAP literature (#2021-27 through #2021-30)	Exposed	As part of its SAP maintenance process, the working group considered and proposed rejecting the following newly issued U.S. GAAA 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 2022
SSAP 61R – Life Reinsurance Disclosure Revisions (#2021-31)	Re-exposed	The regulators 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

Contacts

Contacts information

If you would like additional information, please contact:

Jean Connolly
Managing Director
National Professional Services Group
Tel: 1 440 893 0010
jean.connolly@pwc.com

PwC's Insurance practice leaders

Ellen Walsh
Insurance Consulting Leader
Tel: 1 646 471 7274
ellen.walsh@pwc.com

Jeannette Mitchell
Insurance Trust Leader
Tel: 1 802 598 9962
jeannette.mitchell@pwc.com

Thank you

www.pwc.com/us/insurance

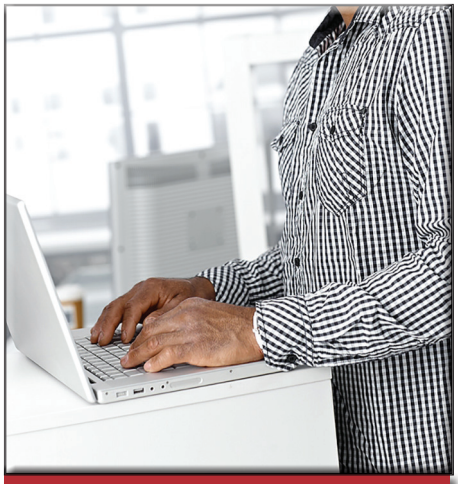
Mark Your Calendars for
Upcoming SOFE Career Development Seminars

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



Upcoming deadline for article submissions:

2022 Summer Issue: May 23, 2022

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.**

We are a nation of symbols. For the Society of Financial Examiners®, the symbol is a simple check mark in a circle: a symbol of execution, a task is complete. The check mark in a circle identifies a group of professionals who are dedicated to the preservation of the public's trust in the field of financial examination. Our symbol will continue to represent nationwide the high ethical standards as well as the professional competence of the members of the **Society of Financial Examiners®.**

Society of Financial Examiners®
3505 Vernon Woods Drive
Summerfield, NC 27358
Tel 336-365-4640
Fax 336-644-6205
www.sofe.org