The Examiner®

Volume 48
Issue 1
SPRING 2023

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

The Examiner®

Official Publication of the
Society of Financial Examiners®

Publisher
Society of Financial Examiners®
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Summerfield, NC 27358
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IN THIS ISSUE

9 **Modeling vs. Underwriting - Is Machine Learning the Underwriter of Tomorrow?**
By Dr. Marcus Schmalbach | RYSKEX Inc.

15 **Considerations for Third-Party Vendor Risk Management**
By Jim Morris, CFE, CPA, CICA, CGMA, MBA
Russ Sommers, CPA, CISA
Danlel Trunk, MS
Baker Tilly LLP

21 **Identifying Effective Internal Controls**
Natalie Howe, CFE, CFE (Fraud), ACI
Examination Resources, LLC

30 **Market Briefing - Market Recap for 2022 and Potential Impacts on Insurer Investments**
By Ed Toy | Risk & Regulatory Consulting, LLC, Reprint

40 **PwC NAIC Meeting Newsletter Summer 2022**
By PricewaterhouseCoopers, Reprint

59 **Mark Your Calendars for Upcoming SOFE Career Development Seminars**

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Modeling and Underwriting - Is Machine Learning the Underwriter of Tomorrow?

Multiple Choice Questions — Submit Answers Online

1. According to Swiss Re Institute, natural catastrophe insured losses in the year 2022 has been estimated as more than how much?
   a. USD 200 billion
   b. USD 100 billion
   c. USD 300 billion
   d. None of above

2. Which one is correct about Artificial Intelligence (AI):
   a. Has three steps: abstraction, modeling, reapplication
   b. Is an important technological development
   C. Algorithms mines large data sets
   d. All above

3. Which one is wrong? Artificial Intelligence Approach:
   a. Models parametric / index-based risks and trying to predict frequency and categorized impact
   b. Bases their analysis on wholistic damage profiles
   C. Models indemnity-based risks and trying to predict damage
   d. Models for arbitrary periods, like seasons, single year, or multi-year period

4. The 'AI + Big Data' approach uses data scientists to create an index from:
   a. Historic claims datasets
   b. Non - traditional sources
   C. (a) & (b)
   d. None of the above

5. The prediction approach based on Big Data and AI is used to::
   a. Determine the impact of the damage
   b. Estimate correct insurance premium
   c. Be integrated into the operational risk management
   d. All of the above

Considerations for Third-Party Vendor Risk Management

Multiple Choice Questions — Submit Answers Online

6. According to the 2022 Verizon Data Breach Investigations Report, approximately how many cyber intrusions stem from third parties?
   a. 48%
   b. 76%
   c. 14%
   d. 62%
   e. 29%

7. Which of the following accurately reflects in order the five stages of the vendor management life cycle?
   a. Planning; Contract Negotiation and Approval; Due Diligence; Ongoing Monitoring; Contract Re-negotiation, Renewal, or Termination.
   b. Planning; Due Diligence; Contract Negotiation and Approval; Ongoing Monitoring; Contract Re-negotiation, Renewal, or Termination.
   c. Due Diligence; Contract Negotiation and Approval; Panning; Ongoing Monitoring; Contract Re-negotiation, Renewal, or Termination.
   d. Ongoing Monitoring; Planning, Due Diligence; Contract Negotiation and Approval; Contract Re-negotiation, Renewal, or Termination
   e. Contract Negotiation and Approval; Ongoing Monitoring; Planning, Due Diligence; Contract re-negotiation, renewal, or termination

8. Which of the following are components of a company's due diligence stage of an effective vendor management life cycle?
   a. Vendor tracking
   b. Vendor specific questions and response
   c. Vendor classification
   d. Vendor risk assessment
   e. All the above

9. Per the authors, companies with effective Third-Party Risk Management ("TPRM") programs ensure all of the following when executing agreements with third-party service providers, EXCEPT:
   a. A Standard Mutual Non-Disclosure Agreement ("MNDA") is included.
   b. Internal or outside counsel performs a review of the agreement.
   c. Punitive damages are set when service providers are found in breach of contract.
   d. Executed agreements follow a standard company agreement; where possible.
   e. Agreements include required language around information security, data ownership, data retention/destruction, and breach notification requirements

10. The monitoring stage of an effective vendor management lifecycle includes which of the following::
   a. Obtaining, inspecting, and documenting SOC (1 or 2) report review.
   b. Service metrics review and variance understanding with vendor.
   c. Discussions regarding changes in vendor performance, strategy, and/or service need(s).
   d. Onsite inspection of vendor.
   e. All of the above

Identifying Effective Internal Controls

Multiple Choice and True or False Questions — Submit Answers Online

11. Internal control is a process, affected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance.
    a. True
    b. False

12. What is not an integrated component of internal control pursuant to the COSO Framework?
    a. Monitoring Activities
    b. Risk assessment
    c. Errors
    d. Information and Communication

13. Pursuant to the Institute of Internal Auditors, Inc.'s updated Three Lines Model, Internal Audit is the second line.
    a. True
    b. False

14. What is a key component of the COSO ERM Framework?
    a. Governance and culture
    b. Strategy and Objective Setting
    c. Performance
    d. All of the above

15. Who is responsible for managing risks identified within an organization?
    a. Internal Audit
    b. Board
    c. Management
    d. Regulators

Market Briefing -Market Recap for 2022 and Potential Impacts on Insurer Investments

Multiple Choice and True or False Questions — Submit Answers Online

16. What percent of U.S. Insurance Company investments are in mortgage loans:
    a. 15%
    b. 17%
    c. 11%
    d. 13%

17. The Core CPI excludes food and energy because of being very volatile?
    a. True
    b. False

18. What was the last time that the effective Fed Funds rates neared 5%?
    a. 2009
    b. 2012
    c. 2011
    d. 2007

19. The main driver of the increasing corporate bond yields was rising Treasury yields?
    a. True
    b. False

20. U.S. Insurance Company investments in real estate related assets have declined over time?
    a. True
    b. False

PwC NAIC Meeting Newsletter Spring 2023

Multiple Choice and True or False Questions — Submit Answers Online

21. Which of the following was not one of the International Association of Insurance Supervisors (IAIS) annual Global Monitoring exercise macro-prudential themes for 2022?
    a. Private Equity Ownership in Insurance
    b. Dynamism of Customer Expectations
    c. High Inflation
    d. Climate Risks

22. Which of the following is not one of the jurisdictions re-approved as qualified jurisdictions by the Reinsurance Task Force?
    a. France
    b. Ireland
    c. Sweden
    d. Bermuda

23. The Statutory Accounting Principles Working Group (SAPWG) adopted American Council of Life Insurers (ACLI) guidance supporting admissibility of negative Interest Maintenance Reserve (IMR).
    a. True
    b. False

24. Which of the following is one of the four SAPWG documents exposed for public comment?
    a. Proposed revisions to SSAP No. 2R
    b. Proposed revisions to SSAP No. 43R
    c. Proposed revisions to SSAP No. 54R
    d. Proposed revisions to SSAP No. 103R

25. Effective January 1, 2023, SSAP No. 21R - 'Collateral for Loans' requires that invested assets pledged as collateral for admitted collateral loans must qualify as admitted invested assets.
    a. True
    b. False

Modeling vs. Underwriting Is Machine Learning the Underwriter of Tomorrow?

By Dr. Marcus Schmalbach
RYSKEX Inc.

A BLUEPRINT AS THE EXAMPLE OF HURRICANE RISKS

INTRODUCTION

Climate change is taking on ever more extreme forms and the effects are being felt globally more than ever. Hurricane Ian and other extreme weather events such as the winter storms in Europe, flooding in Australia and South Africa as well as hailstorms in France and in the US resulted in an estimated USD 115 billion of natural catastrophe insured losses in the year 2022. According to Swiss Re Institute the last year has been the second consecutive year in which the estimated insured losses total more than USD 100 billion, continuing the trend of a 5–7% average annual increase over the past decade. The re/insurance industry covered roughly 45% of the economic losses this year, indicating a large protection gap across the world. At the reinsurance congress in Baden-Baden held October 2022, the cover gap for the USA was estimated at 20-40 billion US-Dollars - and this was certainly a benevolent forecast. Thierry Léger, Group Chief Underwriting Officer of Swiss Re made the following comments: "2022 has been another year of increased natural catastrophe loss activity, and demand for insurance is growing as the protection gap remains vast. To enable the insurance industry to keep up with increasing volatility and demand, it will be key to model evolving frequency and severity trends. Pricing needs to reflect the effective risk." Interesting statements to be discussed in the following article. Since not all global natural disasters can be examined, Hurricane Ian is used as an example. The reason is that Hurricane Ian is this year's costliest natural catastrophe with estimated preliminary insured losses of USD 50–65 billion. The category 4 hurricane made landfall in western Florida in late September with extreme winds, torrential rain and storm surge. Reinsurance experts estimate it to be the second costliest insured loss ever after Hurricane Katrina 2005.

The number one and number two on the perpetual high score of insured losses are thus hurricanes. This statement is already followed by the first question: Were they also the natural catastrophes with the greatest loss volume? It is difficult to determine, because almost all accessible resources refer to the reinsurers' loss figures. In the rarest of cases, however, the actual extent of the damage is disclosed; instead, only the claims payments of insurers and reinsurers are published. Does this make a difference? Yes, absolutely. In order to correctly calculate the amount of coverage or the premium for climate change risks, it is not enough to know the amount of compensation; you also need information about the real impact on the affected region. These figures are of interest for the policyholders in order to be able to hedge the true impact, as well as for the insurance-linked security (ILS) or capital market that wants to invest in catastrophe bonds or private ILS deals. So is traditional - actuarial - underwriting dead for the calculation of NatCat risks? And what are the alternatives?

ARTIFICIAL INTELLIGENCE & BIG DATA

Two terms that no digital transformation workshop should be without. But what exactly is behind them? Artificial Intelligence (AI) is an important technological development. Algorithms to mine large data sets, known as 'big data'. Many publications in recent years have stated that data is the new oil. If this is the case, AI is the refinery that forms gasoline and plastic from it (just a metaphor - AI is fortunately much more environmentally friendly). But we need to step back a bit and get some historical perspective to properly recognize how significant this technological revolution really is.

The scientific method was developed in the 17th century, powered the startling advances of the enlightenment in the 18th and still underpins most academic reasoning today. The method has three steps: abstraction, modelling and reapplication. When a scientist is faced with a messy, complex real-world problem their first step is to simplify or generalize it through abstraction. By making certain assumptions, omitting minor variables and ignoring feedback effects, the problem can be modelled in a simplified form and captured in a theoretical construct with mathematical notation. The specifics of the situation are replaced by x's and y's to make a general model. Once the model is constructed it can be used to make predictions. Putting in different values for x and y will illustrate the range of possible outcomes. So, reapplying this to the real-world problem, some useful conclusions can be drawn, policies implemented, and inferences made. To summarize, the traditional scientific method involves a trip from the specific to the general, followed by some theoretical number crunching and then a reapplication from the general to the specific.

There are problems with this approach. An oft heard complaint is "That's ok in theory but it does not work in practice". The problem normally lies in the first step: the abstraction. Once you move from the specific to the general you intentionally leave the context behind. But the context is sometimes the most interesting part. Things taken out of context will often be misleading. That's often a reason why models fail - the contextual detail left behind in the abstraction phase was very important. There is an alternative approach one that is now commonly used in AI algorithms. Instead of ignoring the context, the algorithmic approach is focused on it. It effectively reduces the three steps of the scientific method to a single step - from problem direct to solution.

An example is Google Translate service. Linguistics experts have been working on the problem of machine translation for years. The traditional approach was to start by programming a model of that language's grammar, which the computer could then use to comprehend the meaning of each statement. Google's approach was radically different. It simply fed the algorithm with millions of examples of translated texts and got the software to teach itself.

The machine in this case was not trying to understand the meaning of the text but simply trying to match patterns. Fairly soon, having scanned the vast numbers of translated texts available on the internet, Google's Translate service was outperforming all other machine translation services without ever understanding what the texts actually said.

So large amounts of data coupled with a machine learning algorithm offer an alternative to the traditional modelling process. Though there is a risk of overfitting, where the algorithm models the noise and not the important data, it does help to solve the 'Catch 22' problem. To launch any new insurance product, you need claims data in order to model risk. Without data you cannot offer insurance, but with no insurance offered you cannot get data. The 'AI + Big Data' approach gets around this conundrum by using data scientists to create an index from non- traditional sources, thus obviating the need for historic claims datasets. What type of alternative data sets can we mine for the coverage of Hurricanes and their impact? Enclosed with an example.

AI DRIVEN MODELLING OF HURRICANE RISKS IN THE USA

Insurance Approach:

- Focus on modelling indemnity-based risks, trying to predict damage
- Risk assessment based on analysis on insured losses, which rarely reflect real losses
- Model for multi-year periods
- Use basic statistics and Monte Carlo Simulation, which averages everything into basic distributions

Artificial Intelligence Approach:

- Focus on modelling parametric / index-based risks, trying to predict frequency and categorized impact (e.g. hurricane categories)
- Base their analysis on wholistic damage profiles, not just insured losses
- Model for arbitrary periods, like seasons, single year or multi-year period
- Use Machine Learning algorithms like XGBoost, Random Forest, Neural Networks

How to make Machine Learning a reliable source? It´s important that you use high quality data, to understand the content of the data and then calculating the potential impacts. In case of hurricanes the National Hurricane Center (NHC) provides different types of datasets, ranging from the 1850´s till 2021.

The sets include Atlantic and East-Pacific data. First you´ve to screen the data sets and dive into them. Then visualize it to understand relationships, trends and then learn to ask the „right" questions to be answered by the algorithms. Analyze the past, correlate it with the major historic events and draw conclusions from it – e.g. the impact of oft he U.S. industrialization or nuclear testing.

Figure I: Hurricane overviews by categories

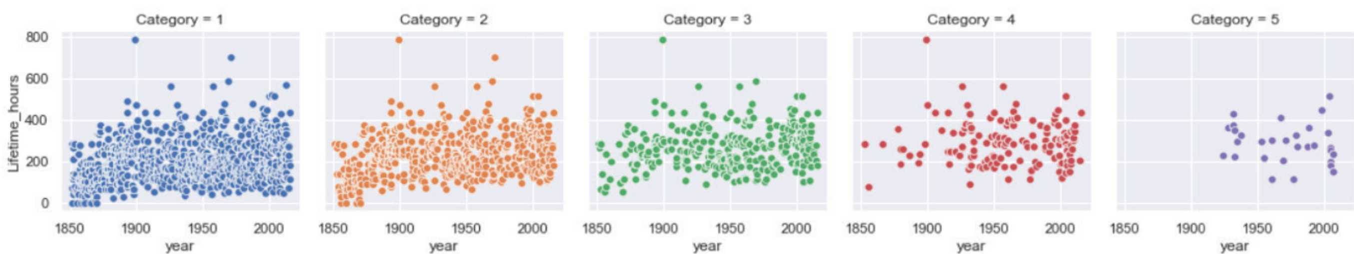
- Every colored circle represents one hurricane
- The higher the category, the less frequent hurricanes occur
- All categories show a clear trend of increasing lifetime hours
- Categories 3, 4 and 5 show a significant increase in frequency over time
- Category 5 hurricanes didn't exist or were not recorded until around 1920

Minimum Pressure
year
Lifetime_hours
Maximum Wind
Category
0
1
2
3
4
5

Analyzing the data:

Figure II: Plotting variables against each other's

- Plotting more variables against each other. E.g. minimum pressure, maximum wind, lifetime hours, etc.
- The red boxed plot shows the increase in lifetime hours per year
- Hurricanes that last longer will also travel further into the country, so they will deal even more damage
- This could also mean, that a higher percentage of hurricanes will make landfall in the future
- Based on these basic insights, we can also assume, that our algorithms will be able to predict frequencies and impacts for the next decades



Hurricanes are categorized by the Saffir-Simpson Wind scale. The average range per category is 32,25 km/h, making it reasonable to assume a theoretical category 6 for hurricanes > 283,25 km/h. In the past three years, hurricane Ian, Ida and Laura had wind speeds of > 240 km/h. Also the designated algorithms predict, that the US will be frequently hit by category 6 hurricanes 203X. The prediction approach based on Big Data and AI is therefore not only used to determine the impact and the correct premium but can also be integrated into the operational risk management of captives and their parent companies. If I already know today that the hurricane frequency and speed and the associated destructive force will increase, I can prepare myself better and transfer my risks more accurately. Some readers will now ask themselves whether the calculation is correct or whether it is rather voodoo underwriting. Only the future can answer this question - we will be able to validate this article in 8-10 years at the earliest.

Conclusion

Working with artificial intelligence has a tiny drawback. AI cannot explain its reasoning. Since it does not use a theoretical framework, its processes are incomprehensible to humans. An algorithm can only show its answers, not its working. So, we only know it works because it does. We do not know why. This can be a potential problem as there may be biases in the process that we are unaware of. Why did the algorithm pick that candidate? Why did it diagnose that medical condition? These are questions we cannot answer. A lot of legislation is based on the concepts of reasoning and intent. But with AI output, there is no accountability and no contestability so it is hard to know how such decisions may play out in court. With machine learning algorithms there is no intent. They are the heralds of the end of reason and the beginning of a new era in underwriting and pricing risks.

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.

Considerations for Third-Party Vendor Risk Management

By Jim Morris
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Russ Sommers, CPA, CISA
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Considerations for Third-Party Vendor Risk Management

Organizations across the world are hyper-focused on cybersecurity and the threats that come with it. One such concern is the risk associated with using and managing third parties. According to the 2022 Verizon Data Breach Investigations Report (DBIR), approximately 62% of intrusions stem from third parties, with the DBIR report team noting the impact of third-party breaches can be more significant due to "the interconnected risks that exist between the vendors, partners and third parties we work with on a daily basis." The use of third-party providers has grown significantly during the last five years. And many businesses outsource essential operations such as claims administration, policy underwriting and production, human resource services, data center hosting, technology infrastructure, IT operations, information security, software maintenance, telecommunications, bookkeeping/ financial accounting, etc. in order to focus on core competencies, increase efficiency, increase system availability, and reduce costs.

Third-party service organizations provide one or more of the above noted benefits, however, these relationships are not without risk. Leveraging third-party service organizations can multiply the potential risk that organizations may suffer a negative impact from an event (e.g., data breach, service interruption) since, instead of one company being targeted and impacted by a cybersecurity or business interruption event, there are now several. Operationally, these risks should be largely offset as a primary driver for utilizing a third-party is to leverage the specialization of that third-party. Simply put, many third-party service organizations offer deep expertise in a narrow area of focus with the size and scale to perform those services more efficiently and effectively than the user entities can in-house. From a cybersecurity perspective, the increase in risk cannot be as easily offset by organizational specialization, especially considering the commentary from the DBIR that third-party service organizations are force multipliers, allowing bad actors access to several companies' datasets as opposed to just one.

Additionally, the threat landscape is evolving and expanding to introduce new risks. Organizations have historically not been exposed to such high-profile and pervasive hazards. Third-party management and oversight is something every organization needs to incorporate into their policies and procedures. Key phases of an effective vendor management program include planning and risk assessment, research and due diligence, vendor selection and contracting, ongoing monitoring, and termination of third-party vendors.

With more enterprises depending on outside third parties, these dependencies present new attack vectors for cybercriminals. And the risk related to reliance on third parties means that enhancing the security of an organization's internal network might not be enough. Cybersecurity Third-Party Risk Management (C-TPRM) is a relatively new concept for most companies. Highly regulated industries such as financial services, healthcare, higher education,

government contractors, etc., have had greater exposure to TPRM and C-TPRM than the marketplace at large. Service providers which are part of the value chain of the highly regulated industries have had some exposure to these evolving expectations through their user entities, but there is still work to do.

Looking at cybersecurity risk to an organization, each vendor, business partner or third-party service organization carries a potential risk to their security. Even if a company uses leading cybersecurity practices, an event at a third-party could compromise its data, customers, or reputation. The process approach described here parallels the 2017 US Office of the Comptroller of the Currency (OCC) examination procedures that supplement OCC Bulletin 2013-29, "Third-Party Relationships: Risk Management Guidance." The process begins by gaining an understanding of the services to be utilized and the number and type of third parties providing those services. The vendor management lifecycle is a series of steps that outline a typical relationship with a third-party service organization. Additionally, both the NAIC Model Law 668 Insurance Data Security Model Law (Section 4.F) and the NYDFS Part 500 Cybersecurity Law (Section 11) outline the requirements of TPRM for covered entities.

The first step of the vendor management lifecycle is planning. Developing a plan when entering into a new agreement or renewing an existing contract should provide Vendor Relationship Managers (VRMs) and supporting stakeholders with the information necessary to assess the overall complexity of the arrangement. Certain factors will dictate the selection process and the level of due diligence and review required. When making vendor selections, critical information such as defining the business case, assessing the financial obligation, establishing the quality standards of service, understanding the risks related to the services provided, understanding the risks related to the people, process and technology used to deliver service and defining the overall performance objectives will need to be considered. The planning process, depending on the type of service(s) and the associated risk, should help define the strategic purpose (e.g., reduce costs, leverage specialized expertise or technology, augment resources, expand or enhance operations, reduce risk), identify legal and compliance aspects, information security considerations, and inherent risks associated with using outsourced services. Given the above, the planning process should involve stakeholders with the following perspectives: business process ownership, information security/technology, and risk management.

The second step of the vendor management lifecycle is due diligence and selection. The contracting company should conduct a review of any potential third-party before signing a contract to ensure that the third-party selected is appropriate and consistent with the company's needs and risk appetite. When considering a new vendor or when recertifying an existing vendor, the company's policy should include:

- Vendor tracking – technology solution or manual (Excel)
- Tracking vendor specific questions and responses.
- Assign/confirm the vendor classification, which can include:
  - Departmental owners and/or VRMs
  - Types of services
  - Other - organization specific classifications
- Assess the risks associated with the vendor, considering factors such as:
  - Volume and type of data transmitted, processed, stored
  - Access to and interface with company IT resources and systems
  - Financial impact
  - Regulatory/legal impact
  - Business interruption impact
  - Reputational impact
- Leverage the vendor risk rating in the decision to develop or continue a vendor relationship.

The vendor risk assessment should also be used to drive both the depth and frequency of both initial vendor due diligence and periodic ongoing monitoring which is described below.

The third step of the vendor management lifecycle is contract negotiation and approval. Developing a contract that clearly defines expectations and responsibilities of the third-party to ensure the contract's enforceability, limit the company's liability, and mitigate performance disputes, as well as, to clearly articulate confidentiality, information security, data protection and breach notification standards. Once the company selects a vendor, representative(s) from VRM (as applicable), and any other appropriate representatives from throughout the organization should collaborate negotiating the contract, with the final agreement defining the scope of services, provide a means to ensure enforceability, contain factors to limit liability to the company, and define performance expectations. In addition, any vendor that handles nonpublic information (NPI) should be required to sign a non-disclosure agreement and comply with the company's vendor information security requirements (which is required per section 500.11(a)(2) per NYDFS Part 500

Cybersecurity Law). Companies with effective TPRM programs ensure that agreements with third-party service organizations:

- Include a standard Mutual Non-Disclosure Agreement (MNDA)
- Are reviewed by company or outside counsel
- Are, to the extent possible, executed using standard company agreements
- Include standard required language around information security, data ownership, data retention/destruction, and breach notification requirements

The next step of the vendor management lifecycle is ongoing monitoring. The company should perform ongoing monitoring of the third-party relationship once the contract is in place to properly manage the company's risk related to the third-party relationship. Performance monitoring for the duration of the vendor relationship is an essential component of the company's vendor management program and ensuring that the risks related with that third-party service organization are understood and actively being managed. The company's assigned VRM should create, maintain, and enforce the processes and procedures, including the third-party's satisfaction of agreed upon service level thresholds, for monitoring vendor performance on an ongoing basis, as well as, obtaining an understanding of relevant information technology and information security considerations. Performing this ongoing monitoring may include one or more of the following:

- Obtaining, inspecting and documenting review of SOC 1 and SOC 2 Reports addressing the design, implementation and operating effectiveness (Type II reports) applicable to the systems and services being used by the company
- Vendor questionnaires addressing key service metrics, known issues and company requirements
- Periodic discussions addressing performance, known issues, shifts in strategy, anticipated future service levels, etc.
- Onsite inspections (increased focus when data is being stored by the service organization)

The VRM is responsible for developing, maintaining, and overseeing the relationship with the vendor. The results of the reviews should be reported to those charged with oversight of IT risk and operations. This could include the following:

- The Board of Directors
- A Board committee
- A management committee
- An IT Steering Committee (ITSC)
- Identified members of management (CISO, CIO, COO, CEO, etc.)

These persons/parties should then assist with escalating issues and developing action plans to address non-performing or under-performing vendors. The performance monitoring process should include steps to ensure the vendor adheres to its contractual obligations, meets its service level agreements (SLA), and complies with any billing specifications.

The fifth step of the vendor management lifecycle is contract re-negotiation and renewal, and/or, possibly, termination. Companies should develop a contingency plan to ensure that it can: transition the activities to either another third-party or in-house or to discontinue activities when a contract terminates in the event the company's business strategy has shifted. In all cases, regardless of the underlying cause, all contract terminations require VRMs to review the action with the appropriate team(s) as needed before formalizing the contract termination and, on an ad-hoc basis, may choose to re-negotiate or renew a contract based on performance or after altering the contract terms. Contract terminations will include contract expirations, the triggering of and failure to rectify terms of default, or in response to changes in business strategy. As noted above under "contracting", agreements with third-party service organizations should outline expectations for data ownership, retention and destruction. Addressing the return/destruction of data only while ending a vendor relationship may not yield satisfactory treatment.

While outsourcing certain products and services can benefit an organization by enabling it to focus on its core competencies, third-parties pose potential risk to the organization. As incidents relating to third parties continue to grow, risk factors could have adverse impact on the organization such as, strategic, reputational, financial, legal, information security issues, business interruption and/or regulatory non-compliance. Third-party risk management is more than just a sound business practice, it is also a requirement of certain financial services regulations. By developing and following a formalized third-party risk management program, companies should be positioned to properly assess and manage the risk of third-party relationships and should assist an organization in managing its risk exposures and compliance requirements.

About the Authors

Jim Morris, CFE, CPA, CICA, CGMA, MBA is a director in Baker Tilly's financial services risk advisory practice with more than 40 years of experience in the financial services industry. His expertise includes regulatory examinations, financial analysis, risk assessment and identification, internal control identification, design, implementation, evaluation and remediation, operation workflow analysis and design and audit services. Jim has accumulated significant experience serving as an examiner-in-charge conducting NAIC risk-focused examinations of large national and multinational insurers and regional Blue Cross Blue Shield Plans for numerous state insurance departments. He has also provided consulting and insights to multiple regulatory agencies and insurance companies regarding Enterprise Risk Management assessment, best practices, ORSA preparation and analysis and compliance considerations. Prior to joining Baker Tilly, Jim worked in the insurance and banking industries where he led teams responsible for the implementation and testing for compliance with the Sarbanes-Oxley Act of 2002 and the NAIC's Model Audit Rule internal control framework projects, managed internal audit engagements on both a direct and co-sourced basis (including managing a thrid-party administrator audit department for a large international life insurer), collaborated with management teams, providing process efficiency recommendations and improvements, and also served as the examination liaison between insurance companies and the state insurance regulators.

Russ Sommers, CPA, CISA is a director in Baker Tilly's financial services risk advisory practice with more than 17 years of experience in the financial services industry, specializing in insurance. Russ has helped financial services clients identify and navigate their governance, risk and compliance expectations by leading a broad array of projects, including internal controls advisory, internal audit, IT and cybersecurity examinations, cybersecurity and regulatory compliance consulting, information technology audit and risk assessment, vendor risk management, enterprise risk management and SOC 1/2 reporting. Russ is a SOFE member and frequent speaker on insurance governance, risk and compliance matters.

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Identifying Effective Internal Controls

By Natalie Howe, CFE, CFE (Fraud), ACI
Examination Resources, LLC

Background

History has highlighted the importance for companies to develop, enhance and monitor a system of internal controls given the value that effective internal control environments provide. The Sarbanes-Oxley Act ("SOX") was enacted in 2002 and was driven by major financial scandals such as Enron and WorldCom. Such cases of fraud demonstrate that ineffective control environments, and failure to identify or correct control deficiencies, can be disastrous. In this article we will navigate through the five key components of effective internal control systems to assist Examiners in identifying effective from ineffective internal controls during a financial examination. Further, we will align best business practices to examination procedures for consideration during financial examinations conducted in accordance with the standards prescribed in the Financial Condition Examiners Handbook ("FCEH").

There are multiple control frameworks to assist companies in establishing an effective system of internal controls. One of the most used frameworks is the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") Internal Control – Integrated Framework that was originally released in 1992 and updated in 2013 to incorporate new business practices and needs. The COSO Internal Control – Integrated Framework ("COSO Framework") will be the focus of this article.

What are internal controls and what purpose do they serve?

"Internal control is a process, affected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting, and compliance." How effective and efficient are the company's operations? Is reporting reliable, timely and transparent? Is the company in compliance with laws and regulations?

Internal controls serve the following four key objectives:

- Protect assets
- Ensure records are safe
- Promote operational efficiency
- Encourage adherence to policies, rules, regulations, and laws

When designed appropriately and operating effectively, internal controls protect the assets of the company by effective implementation of the company's operations. Business operations should be effective and efficient to prevent unnecessary duplication and ensure controls are designed to prevent theft, misuse, or accidents. Reporting should be designed to provide reliable financial and nonfinancial reports.

Internal Control - Key Elements

Now that we've discussed the purpose of internal control, lets journey through the key components of internal control. The COSO Framework identifies Internal control as having the following five integrated components:

- Control Environment
- Risk Assessment
- Control Activities
- Information and Communication
- Monitoring Activities

Collectively, effective internal control environments help companies reduce risk to meet operating, reporting and compliance objectives. We will dive into each of the five integrated components further below.

Control Environment

According to COSO, the control environment is the "set of standards, processes, and structures that provide the basis for carrying out internal control across the organization". An effective control environment should be one that lays the foundation for all other components of internal control and is often viewed as the most critical of the five integrated components. Core values can drive the tone for the control environment.

A company's culture and ethical tone can significantly influence Board, Senior Management, and employees' attitude toward internal controls and ultimately will impact the control environment. In the absence of an ethical and compliant culture, companies put themselves at undue risk that can lead to internal weaknesses, non-compliance with regulations, fraud, etc. Since the control environment is influenced by management and how leadership fulfills its oversight duty, it's important to understand effective governance principles in assessing the corporate governance structure and its potential impact on the control environment. Below are some examples of effective governance principles:

- Appropriate composition of the Board of Directors ("Board") with consideration to number of Board members and qualifications.
- Understanding by senior leadership and the company's Board on the operating structure, including structures that may impact transparency within the organization.
- Organizational strategy including mission, vision, objectives, goals, and plans that are measurable against the success of the company.

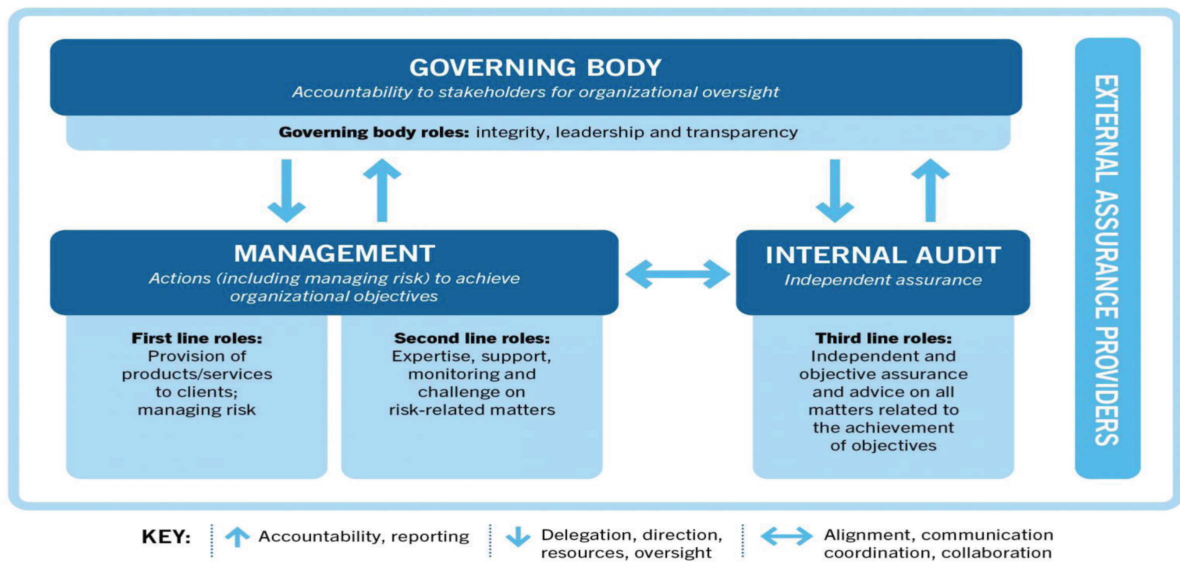
- Clear lines of responsibility and accountability throughout the organization.
- Effective interaction amongst Board, management, external and internal auditors, and appointed actuary.
- Ensuring that compensation policies and packages are consistent with the organizations ethical values, objectives and strategy and encourage appropriate behavior.
- Effectively use internal and external auditors and ensure adequate independence, resources, and scope.
- Clearly define and implement risk management policies, processes, and responsible parties from the top down.
- Transparent disclosure of key information to stakeholders and ensuring identification and inclusion of all stakeholders.
- Ensure adequate oversight of related-party transactions and conflict-of-interest situations.

A company committed to an effective internal control environment is more likely to operate with integrity and ethical values that come from the top down.

Risk Assessment

According to COSO, "Risk assessment involves a dynamic and iterative process for identifying and analyzing risks to achieving the entity's objectives". The company's strategic plan identifies the objectives and goals. It's then critical for a company to understand potential roadblocks or "risks" that could impact the achievement of such objectives and goals. Many companies have come to see the value in using a holistic enterprise risk management ("ERM") framework to assess risk consistently throughout the organization rather than managing risks within organizational "silos". In 2004, COSO also released an ERM Framework, which was later updated in 2017 and called ERM – Integrated Framework – Integrating with Strategy and Performance ("COSO ERM Framework").

Ultimately, management assumes responsibility for managing risk. Responsibilities of managers at different levels vary by company. Companies with more mature ERM frameworks will have an ERM Department that falls within the second line of defense and led by the Chief Risk Officer. Below is the Institute of Internal Auditors, Inc. Three Lines Model that outlines key responsibilities within each line.



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The three lines collaborate to work towards the achievement of organizational objectives. Within the first line, managers own and manage risks whereas the second line aids with managing risks in more advisory capacities. For example, the second line may provide guidance on ERM requirements for management's adherence to standards including the risk appetite and regulations. An ERM Department may be responsible for analysis and reporting on the adequacy and effectiveness of risk management as well as communicating with management on emerging risks. Lastly, the third line is the independent line that encompasses the Internal Audit Department and provides advisory and assurance services over risk mitigating strategies "controls".

Key components of the COSO ERM framework includes governance and culture, strategy and objective setting, performance, review and revision and information, communication, and reporting. The performance function can be further broken down to include risk or event identification, severity assessment of risk, prioritization of risk, implementation of risk responses (e.g., "controls") and portfolio view of risk. Common risk identification approaches include risk or "event" registers, internal and external analysis, event threshold triggers, qualitative (e.g. likelihood and impact

estimation) and quantitative measures (e.g. benchmarking and modeling), and facilitated workshops and interviews.

The 2nd and 3rd line may hold annual collaborative tier 1 (e.g., Senior Leadership) and tier 2 (e.g., operational management) interviews on key risks as part of the formal ERM risk assessment process as well as Internal Audit's process in development of the Audit Plan. Risk assessments may be micro or macro in their overall scope. Ultimately, the risk assessment should include identifying, measuring, and prioritizing risks.

It's also important for a company to consider its fraud risk factors within the completed risk assessment process. The risk assessment process should be evolving and dynamic as opposed to static. Overall effective risk management ensures that all significant risks are identified, prioritized, and mitigated through effective internal controls.

Control Activities

According to COSO, "control activities are the actions established by policies and procedures to help ensure that management directives to mitigate risks to the achievement of objectives are carried out." Key controls should be designed to reduce or mitigate risks to an acceptable level through the achievement of objectives. If omitted, key controls would likely prevent the achievement of the desired objective. Non-key controls or "secondary" controls may help the process run smoothly but are not essential. Controls are automated or manual and designed to prevent or detect errors or misstatements. Compensating controls or "alternative controls" may also be designed and implemented to satisfy the requirement of a security measure. For example, a compensating control could be used on a smaller team where there is incompatible segregation of duty conflicts within an application system. Compensating controls are generally manual controls and occur after the transaction has been completed but can help reduce the risk of fraud.

What is a deficiency in design? A deficiency in design may occur if the control is missing or the control is implemented, but not properly designed to achieve its objective. A deficiency in operation may occur when the person performing the control does not have the necessary knowledge to perform the control effectively.

Effective internal controls are those that are designed, implemented (e.g., auditable) and operate effectively.

Information and Communication

Companies should ensure that information is identified, captured, and communicated both internally and externally as needed. Information should be communicated timely to assist management within the three lines to identify and respond to internal control weaknesses and emerging risks. Effective communication occurs upward, downward and across the organization.

Monitoring

The three lines should work collaboratively to ensure appropriate and ongoing monitoring of a company's internal control structure. Management should have a process in place to monitor and assess the quality of the internal control system's performance over time. This may be accomplished through ongoing monitoring activities, separate evaluations, or a combination of the two.

Examination Procedures – Examiner Considerations

How can Examiners consider the five integrated components of the COSO framework discussed above when performing financial examinations? Below we break out consideration for Examiners when conducting financial examinations.

Corporate Governance Assessment

Understanding the Corporate Governance Structure ("Exhibit M") of the FCEH identifies various questions for Examiners to consider when assessing corporate governance, including elements relating to the control environment such as integrity and ethical value, management's philosophy and operating style, organizational structure, assignment of authority and responsibility, human resource policies and practices and competence/experience of personnel. Examining culture is a key component to assessing corporate governance during Phase 1 procedures. Does the company have an established Code of Conduct? How is the Code of Conduct communicated and what training is provided to ensure employees and Directors understand expectations outlined within the Code of Conduct and how to identify and report an issue. Are issues communicated to the Board and how are they investigated? Reviewing the Code of Conduct prior to C-level interviews can in preparation for questions to ask during C-level interviews. As discussed within the "control environment" section, the company's culture and attitude towards internal controls impacts the internal control environment.

In addition to assessing the Board, understanding the organizational structure, assignment of authority and responsibility and assessing management, Exhibit M identifies various questions to consider during Examiners assessment of the ERM function. For ORSA companies, various procedures are outlined within the FCEH for validation of ORSA reporting that may assist in assessing the company's ERM maturity level. Qualitative techniques used by the company to prioritize risk may be reviewed by Examiners in understanding likelihood and impact of risks identified by the company (e.g., ORSA or risk register). As part of the ORSA validation procedures, Examiners may want to consider reviewing quantitative assessment techniques used by the company such as benchmarking and modeling to evaluate the company's assumptions used to estimate likelihood and impact of a risk. As discussed within the "risk assessment" section, internal controls are only as effective as the risk analysis that supports them.

Control Testing and Substantive Testing

During Phase 3 control testing consideration should be given to testing key controls versus the non-key controls described above in the "Control Activities" section. Once key control(s) have been identified for examination risks, consideration should be taken for design, implementation and operating effectiveness. Companies subject to SOX and Model Audit Rule ("MAR") should generally have effective internal controls, therefore more time will likely be spent within Phase 3 than substantive testing in Phase 5. However, smaller companies that lack strong corporate governance and/or documented policies and procedures may have more ineffective controls where Examiners would want to place more focus on substantive testing.

A two-step process may be taken to assist in Examiner's assessment of control activities and ensuring efficiencies during Phase 3 procedures. The first step is to evaluate the key control(s) design and implementation ("D&I"). Would the control(s) prevent or detect an error? What impact does the control have on the inherent risk?

Examination procedures to evaluate D&I may include performing inspection and observation. For example, a walk-through of the control with the control owner may be performed with relevant documents inspected. External auditor work papers may be relied upon as well. Various items may be considered in evaluating D&I such as alignment between risk and control objective, sufficiency in control frequency, issues and exceptions are addressed timely (e.g., detection controls) and adequate segregation of duties or compensating controls. Based upon inquiries and observation, if the control is deemed effective for D&I Examiners would then test operating effectiveness ("TOE"). Examination Sampling Worksheets ("Exhibit O") should be considered in control sample sizes. As discussed above in the "Control Activities" section, a control deficiency or control

assessment of "weak risk control" may still occur after TOE completion due to issues noted in testing, which may result in substantive testing based upon residual risk assessment.

If it's determined that the design of the control is not effective to reduce the risk or the control is not implemented where there is documented support for TOE of the control, then the control would be deemed ineffective or "weak risk control" and the value to the examination would be to place more time on Phase 5 substantive testing procedures and not perform TOE on the control. Ultimately, an effective control(s) should reduce or mitigate the inherent risk. If inherent risk equals residual risk than the control is not effective.

Conclusion

Understanding the key elements of the COSO framework can assist in understanding the parallel between best business practices for effective internal controls and examination procedures. Effective internal controls may reduce or mitigate risks and create examination efficiencies by placing more time and value on control testing in Phase 3. For ineffective controls, Examiners would want to place more time on substantive testing in Phase 5. However, this is not intended to imply that substantive testing should not be performed such as on high inherent risk assessments, but rather help Examiners efficiently identify effective from ineffective controls and impacts to the examination procedures.

End Notes:

Sources

1. An executive summary of the COSO Framework can be found at Executive Summary (coso.org)

2. Committee of Sponsoring Organizations of the Treadway Commission

3. Guidance on the COSO ERM Framework can be found at Guidance on Enterprise Risk Management (coso.org)

About the Author

Natalie Howe, CFE, CFE (Fraud), ACI is a Manager within the Financial Examinations division at Examination Resources, LLC. Natalie has over 18 years in the insurance industry, including over 12 years of experience working in the field of insurance regulation serving multiple state insurance departments as an Examiner-in-Charge/Field Examiner. Natalie has experience performing financial examinations on traditional and captive insurance companies for various lines of insurance.

In addition to Natalie's regulatory experience, she worked as a Senior Internal Auditor for a large health care organization where she led assurance and advisory audits. During her role in Internal Audit she led various advisory audits to evaluate design and implementation of internal controls.

Natalie earned her M.B.A. degree from MidAmerican Nazarene University and B.S. degree in Accounting from Missouri Western State University. She is a Certified Financial Examiner (CFE), Certified Fraud Examiner (CFE) and holds the Associate in Captive Insurance (ACI) designation.

Natalie resides in Kansas and is a member of the Society of Financial Examiners, Insurance Regulatory Examiners Society and Association of Certified Fraud Examiners.

Market Briefing - Recap for 2022 and Potential Impacts on Insurer Investments

By Ed Toy | Risk & Regulatory Consulting, LLC, Reprint

Introduction

To say that 2022 was an eventful year for investments would be a significant understatement. Interest rates rose across the entire yield curve. Market spreads varied. Equity markets jumped up and down. Oil prices spiked and then settled back down. Commercial real estate values rallied before dropping. This market briefing will focus on changes since year-end 2021 and how those changes very likely impacted U.S. insurance company investments and investment practices. *[The data for insurance company investments was all based on Financial Statement Data submitted to the NAIC and acquired via SNL, which is a unit of S&P Global. Market data was acquired via the Federal Reserve Bank of St. Louis.]*

U.S. Insurer Invested Assets

	Combined		Life		P&C		Health	
	2020	2021	2020	2021	2020	2021	2020	2021
Bonds as percent of ULT	77.42	75.38	80.48	79.42	67.86	64.01	82.30	82.17
Corporate (plus Loans)	44.09	43.26	51.40	51.34	26.52	25.07	33.34	33.93
Governments	14.41	13.98	9.78	9.52	24.66	23.07	21.90	21.99
Structured	18.35	17.58	18.78	18.14	16.16	15.24	25.02	24.00
Mortgages and Real Estate as % of ULT	10.88	10.75	15.02	15.14	1.74	1.71	0.17	0.23
Equities as percent of ULT	8.90	10.43	1.31	1.55	26.89	30.35	13.65	13.24
Schedule BA as percent of ULT	3.32	3.93	3.19	3.88	3.51	3.93	3.88	4.36
Equities as percent of Surplus	33.09	37.65	11.98	13.87	47.15	53.23	13.80	13.65
Schedule BA as percent of Surplus	12.34	14.19	29.13	34.63	6.15	6.89	3.92	4.49

Before diving into the specific market details, a quick review of U.S. insurance company investments is useful. Investment portfolios consist primarily of fixed income investments, with about 75% of unaffiliated long-term assets in bonds and roughly another 11% in mortgage loans. Equities are also significant, though the exposure as a percent of assets is not that material for Life companies. Less transparent in terms of their market risk are those investments reported on Schedule BA. These tend to lean heavily to equity-type risk, but also include some fixed income like instruments.

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

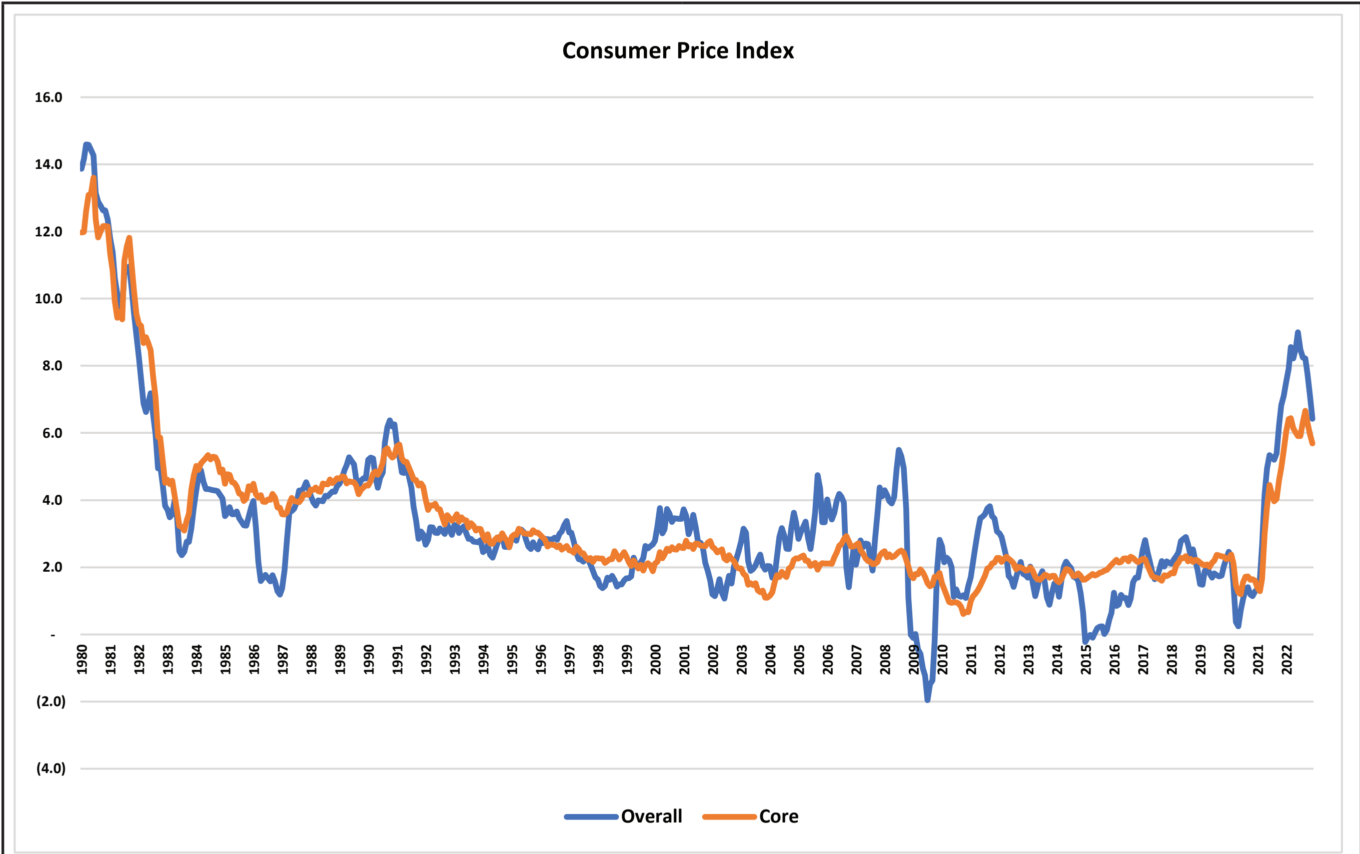
A key consideration for bond portfolios is the duration, and therefore interest rate risk, of the holdings. Duration is not reported on the investment schedules, but expected maturity dates are. While different variables impact the actual duration of individual holdings, maturity can be a reasonable indicator of when there are likely to be exposure to longer duration assets. The average maturity score for Life insurers has been increasing in recent years and was at just over 14 years as of year-end 2021. Property & Casualty ("P&C") insurers and Health insurers maintained considerably shorter portfolios.

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

Based on the distribution of bond holdings across the broad categories of NAIC Designations, credit quality in the bond portfolios has remained relatively stable. While holdings of below investment grade bonds are significant and have increased as percent of total for P&C and Health insurers, the U.S. insurance industry as a whole remains generally underweighted to the more volatile category. Holdings of bonds in the triple-B category have also grown over time as that part of the market has grown. Of potential interest, and perhaps deserving of special focus, would be those with a BBB-minus rating since those would be most at risk of downgrade to below investment grade.

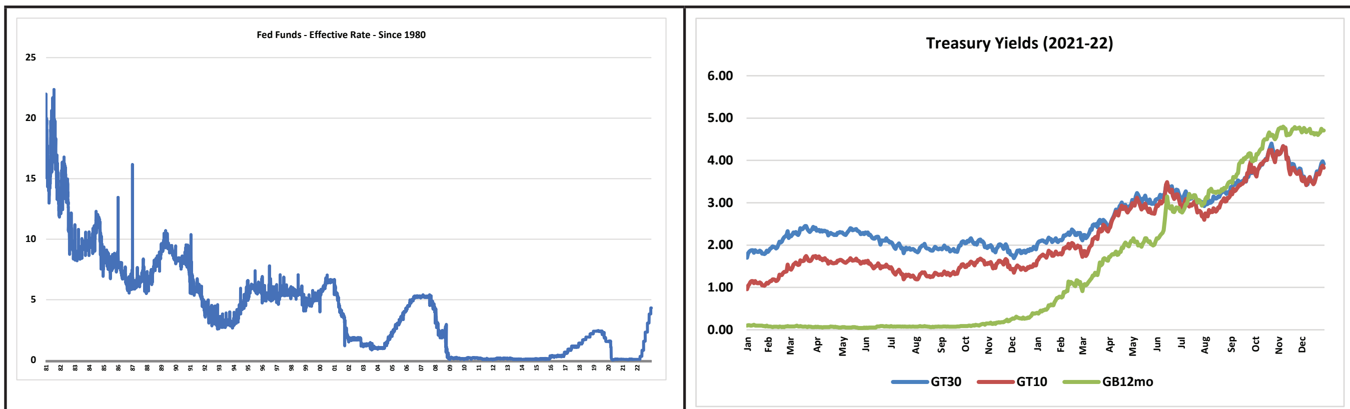
Inflation

A main driver of economic volatility in 2022 was undoubtedly inflation, as indicated by year over year percentage changes in the Consumer Price Index ("CPI"). There are two metrics – the Overall CPI and the Core CPI. The Core CPI excludes food and energy as those two contributors to CPI can be very volatile from month to month. Oil prices jumped from $75 per barrel to a high of $130 per barrel in March, before settling back down to $80 per barrel at year-end 2022. Both of the CPI metrics started increasing at the end of 2021, largely driven by supply chain issues that are a continuing holdover from the COVID-19 Pandemic in 2020. This was exacerbated by various factors – especially a spike in oil prices – that were related to the Russian invasion of Ukraine. Overall CPI peaked in June of 2022 at 9.1%. Core CPI peaked a few months later, in September, at 6.6%. Inflation had not been at these levels since the early 1980's. Since then, both of the metrics have moderated. Overall CPI came down to 6.5% and Core CPI to 5.7% in December.

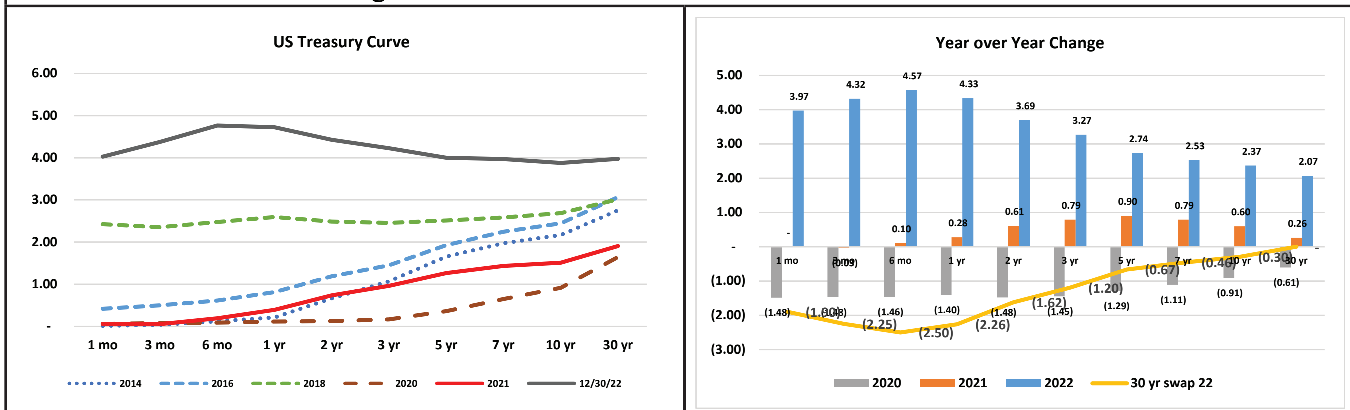


Interest Rates

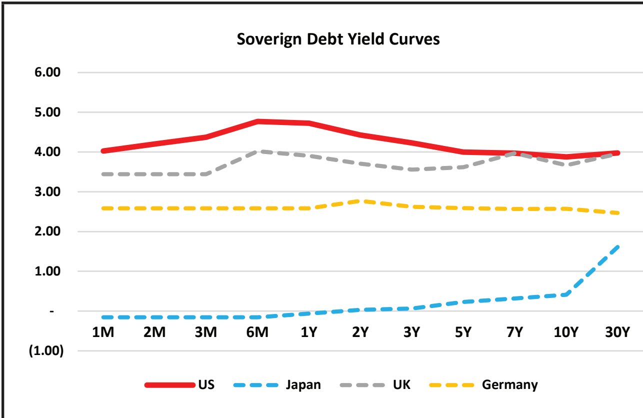
While inflation may have been a driver of economic volatility in 2022, the impact on investments came from the policies enacted by the Federal Reserve Board (the "Fed"). Fed policies had generally kept interest rates relatively low since 2008. With the COVID-19 Pandemic in 2020, the Fed took drastic action to revive the economy. This included lowering the target range for Fed Funds to zero and increasing the Fed balance sheet through asset purchases to almost $10 trillion. While the Fed did not take immediate action at the end of 2021, it began to aggressively increase the Fed Funds target range, increasing short-term interest rates at every meeting of the Federal Open Market Committee meeting in 2022. With the last increase in December 2022, the Fed Funds target stood at 4.25% to 4.50%. In addition, the Fed began to gradually unwind its holdings of longer dated assets.



As a result, the effective Fed Funds rates neared 5.0%, a level not seen since 2007. Yields on short-term Treasuries also rose by over 400 basis points. Yields on longer dated Treasuries also rose, but not to the same degree. By the end of the year, the 10-year Treasury yield was at 3.88% (up 237 basis points) and the 30-year Treasury yield was at 3.98% (up 207 basis points). This is compared with the 1-year Treasury yield of 4.72% (up 433 basis points). The lower yield on longer dated Treasuries is largely attributed to market concerns that the Fed would overshoot its goals and drive the U.S. economy into a recession, which would then precipitate a need to lower interest rates in the future. The net result of short-term interest rates that are higher than long-term rates is an inverted yield curve. At various times, short-term rates were more than 100 basis points higher than long-term rates and closed the year with the highest point of 4.77% on the 6-month Treasury versus a low point of 3.88% on the 10-year Treasury. This degree of inversion is also the most significant since the 1980's.

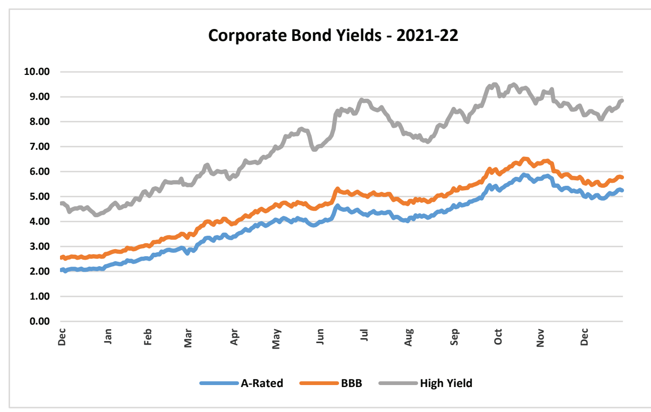


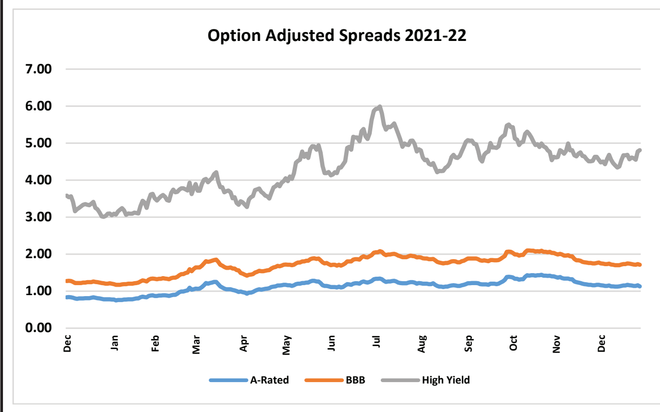
This rapid and dramatic curve inversion of 250 basis points (between the 1-year Treasury and the 30-year Treasury yields) has the potential for creating significant anomalies in the fair market value of different instruments. One area for special focus is interest rate related derivatives used in hedging. Different interest rate hedging strategies may be impacted in different ways as the value of longer dated swaps will differ from shorter dated ones, and derivatives that use shorter duration risk to offset longer duration risk may be affected in unusual ways. Dramatic curve inversions such as this may impact determinations of hedge effectiveness for Statutory Accounting purposes.



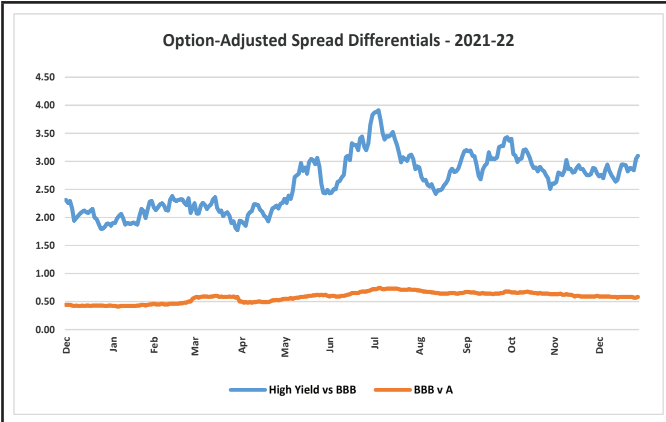
U.S. insurer holdings of bonds issued by non-U.S. entities are not that significant, but investments in those will be impacted differently and to different degrees. Different interest rate markets have also impacted foreign currency exchange rates. Any non-U.S. dollar investment that has not been hedged will see material differences in valuations.

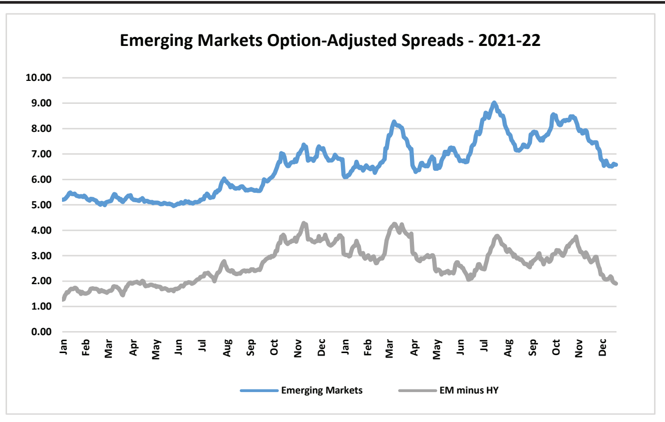
Investment Yields



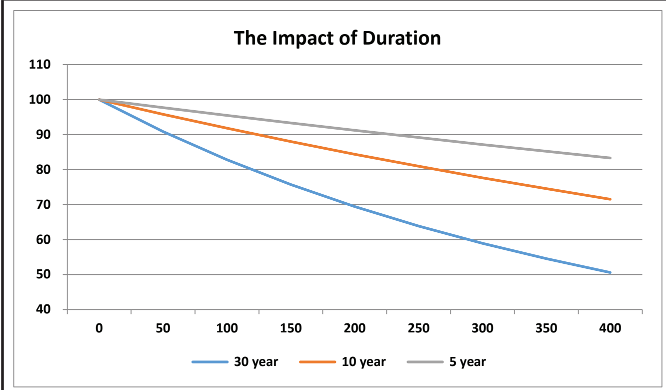


The rapid and significant rise in interest rates also translated into higher investment yields in the bond market. Broadly speaking, the change year over year differed depending on the credit quality. Corporate bond yields for single-A rated issuers rose from 2.20% to 5.25%, while triple-B rated bonds rose from 2.70% to 5.75%. More significant was the broad category of high yield bonds, or those rated below investment grade. Closing the year at 8.85% versus 4.35% at year-end 2021, this category experienced additional volatility during the course of the year as market sentiment continued to evolve. While most of the increase in corporate bond yields was driven by rising Treasury yields, another component was changes in option-adjusted spreads. Investment grade corporate bonds saw a gradual increase in option-adjusted spreads during the year as concerns about a weakening economy in the future did impact concerns over downgrades. Much more significant was the volatility in option-adjusted spreads for high yield bonds which began the year at 310 basis points and peaked at 600 basis points in July, before settling at 480 basis points at the end of the year.





An additional indication of market volatility is the differential in option-adjusted spreads between different credit quality bonds. The differential between single-A rated corporate bonds and triple-B rated corporate bonds experienced a modest increase over the year. On the other hand, the differential between high yield corporate bonds and triple-B rated corporate bonds varied significantly, beginning the year at 190 basis points, increasing to 390 basis points in July, before settling at the end of the year at 310 basis points. Similar volatility was seen in the differential in option-adjusted spreads between emerging markets bonds and high yield corporate bonds in the U.S. This reached levels of 400 basis points before finishing at 160 basis points, which was actually lower than where the differential began in 2022.



	Average Life		
CPR	**Short**	**Intermediate**	**Long**
0.0%	6.60	15.96	25.46
2.5%	3.38	8.76	16.11
5.0%	2.38	6.17	12.18
7.5%	1.90	4.78	9.92
10.0%	1.61	3.95	8.39
20.0%	1.13	2.40	5.25
25.0%	0.93	2.08	4.45

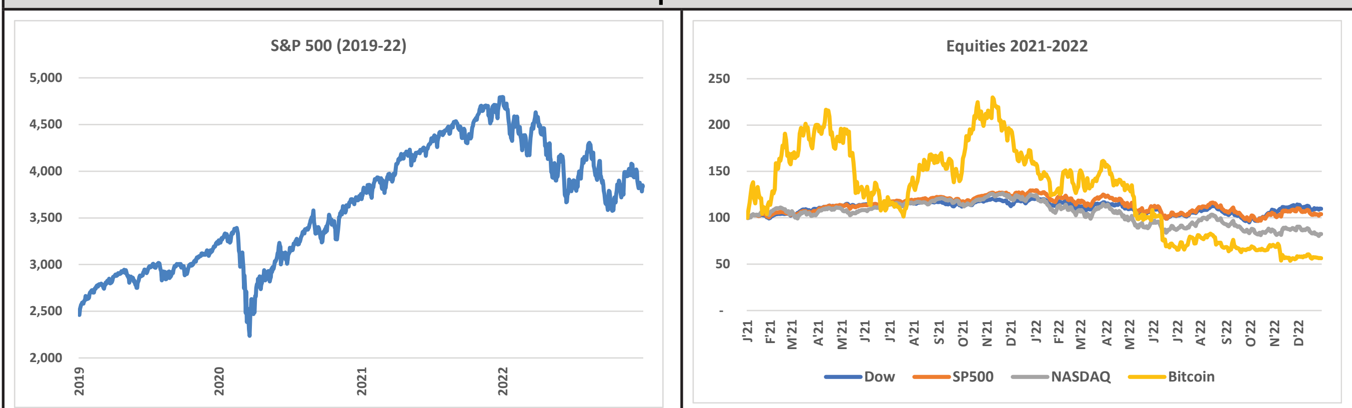
A simple illustration of interest rate related risk is what happens to different bond maturities (30-year, 10-year and 5-year) with different levels of interest rate changes, in 50 basis point increments up to 400 basis points. At the extreme end, a 30-year bond would lose half of its fair market value with a 400 basis points increase, while the 10-year and 5-year bonds would lose 30% and 15%, respectively. Further complicating this calculation is the impact of rising interest rates on Residential Mortgage-Backed Securities (RMBS), both Agency-Backed and Non-Agency Securities. RMBS investments are typically modeled at time of purchase with a certain Constant Prepayment Rate (CPR). In the illustration above, a 10% CPR would mean an expected average life of 1.61, 3.95 and 8.39 years, respectively, for the different tranches. As interest rates rise and actual prepayment experience declines, perhaps to zero, those bonds extend to 6.60, 15.96 and 25.46 years, respectively. Cash flows decline dramatically, and valuation is on the longer end of the interest rate curve, further impacting liquidity issues.

Duration Category	Weighted Avg Duration	% of FV	% of CV	FV/CV	Revised FV/CV
< 2 years	0.90	10%	11%	102%	99%
2 - 5 years	3.66	19%	20%	104%	95%
5 - 10 years	7.07	26%	27%	107%	92%
10-20 years	14.45	38%	36%	115%	85%
20+ years	24.40	7%	7%	111%	67%
Grand Total	9.55	100%	100%	109%	89%

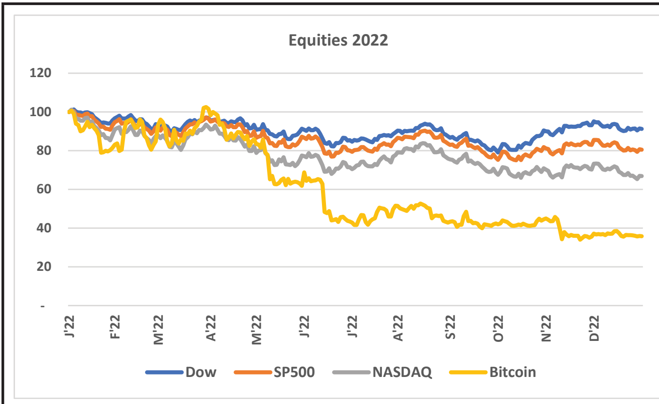
The table to the left is an illustration of how the increase in interest rates and investment yields may impact a typical Life insurance company bond portfolio. With a distribution across different duration buckets and fair value estimates as of year-end 2021 in comparison with carrying value, the portfolio had a fair market value equal to roughly 109% of carrying value. With the change by year-end 2022, that relationship would have declined to 89% with the most significant change in the longest duration category, declining from 111% to 67%.

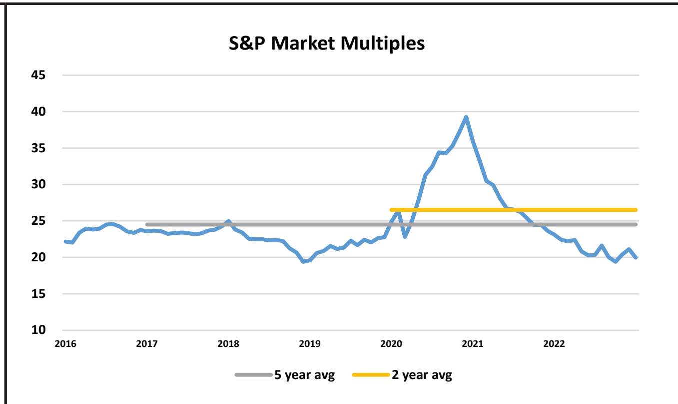
Under general considerations, a decline in fair market value of the bond portfolio does not have a direct impact on an insurance company as long as it can continue to hold those bonds until they mature. Nonetheless, this shift does impact liquidity considerations and any liquidity stress testing that the insurer does. A more direct and immediate impact is on any bonds that are pledged as collateral where the collateral requirements rely on fair market values. Two significant areas are those assets pledged to Federal Home Loan Banks and to derivatives counterparties. A material decline in fair market value of those assets could lead to a need to add additional assets, further impacting the insurer's liquidity profile.

Equities



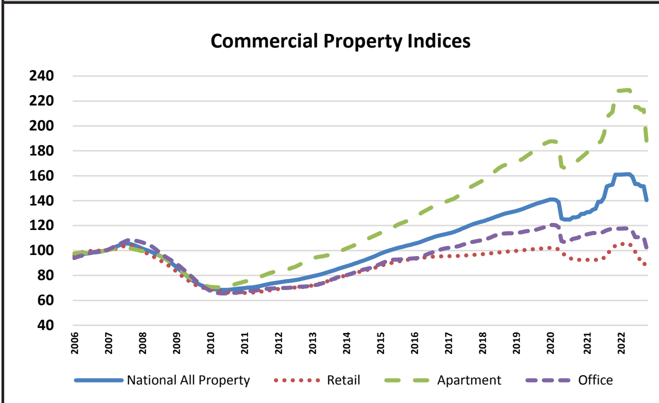
While equity holdings are less significant as an asset class for U.S. insurance companies, fair market values are more volatile. Carrying values are also at fair market value, which therefore has a more immediate impact on an insurer's capital and surplus. Nothwithstanding the substantial drop in equity markets in the spring of 2020, valuations had generally been strong through the end of 2021. In 2022, however, the S&P 500 declined 19.4% and at one point was down 25% from year-end 2021. In the above illustration to the right, equity markets were indexed at 100 at the beginning of 2021 for the Dow Industrials, S&P 500 and NASDAQ. The Dow Industrials and S&P 500 largely mirrored each other and ended the two year period up 9.7% and 3.8%, respectively. The NASDAQ, which is more technology heavy and also has smaller capitalized companies, was down 17.6% over the same two year period. For additional color, the market performance of the cryptocurrency, Bitcoin, was added.





The graph above left focuses on just the year-over-year change from 2021; the three market indices were down 8.8%, 19.4% and 33.1%, respectively. One important factor in assessing equity markets is the price-earnings multiples. This is always a bit of an inexact calculation as earnings are reported and as earnings expectations change. However, the market multiple for the S&P 500 ended the year at roughly 20 times, which is well below the running two and five year averages.

Commercial Real Estate Values



As U.S. insurance company investments in real estate related assets have increased over time, albeit mostly in the form of mortgage loans, commercial real estate valuations have become a more material consideration. While national index values declined in the first half of 2020, they recovered quickly and continued into 2022. That latter trend shifted significantly in the second half of the year. Higher interest rates impacted valuations, but there were also increasing concerns about prospects going forward.

The All Property Type National Index declined more than 13% from the peak in the spring.The retail sector has continued to struggle. As long-term leases begin to expire on tenant space in office buildings, this is expected to be materially impacted by companies that have grown more comfortable with work-from-home programs. This is more likely to be the case for properties in central busines districts. The national index value for apartment properties did extremely well over several years, but that sector also dropped significantly in the last few months of 2022.

Closing Thoughts and a Few More Questions to Consider

Economic uncertainty, high inflation, and a sharp rise in interest rates came together in 2022 to negatively impact virtually every asset class and investment practice. This led to both realized and unrealized losses. There may also be yet to be recognized losses as insurers carry many assets at amortized cost.

With higher interest rates, insurers will be able to invest in new bonds and mortgage loans with higher yields. However, existing holdings of bonds and mortgages loans will see their fair market values decline. Those declines will be significant for longer dated investments. Some investments may see those value estimates also decline even more with the increased risk of downgrades and/or defaults. In addi-tion, RMBS valuations will be under further pressure because of lower prepayment rates.

Though we typically focus on the impact on fixed income instruments when interest rates fluctuate, this also affects the valuations of other invested assets, including equities and private equity funds. Subject to other variables, higher interest rates also negatively impact the valuations of equities and equity-related investments. One of those other variables is the longer term prospects for earnings for companies that have been invested in, which will also be negatively impacted if they carry a material amount of debt.

The actual impact on some other asset types will be more difficult to discern. Two asset types that may be of special interest are collateral loans and bond mutual funds, including exchange traded funds. Collateral loans are typically considered fixed income instruments and so would be subject to those same pressures. However, an additional consideration is what effect higher interest rates may have on the assets that are pledged as collateral. Statutory Accounting and individual state investment regulations limit admissability of collateral loans depending on the underlying value of those assets. Bond mutual funds obviously have bonds as the dominant holdings within their portfolios and would therefore be subject the pressures already described. But an additional layer of complexity is the management of those portfolio, whether active or passive, and how that may impact the net asset values of the fund.

When markets are more volatile, it is not uncommon for insurance companies to more actively manage their portfolios with the goal of addressing different market dynamics. Insurance companies do not typically try to time the market. As insurance companies increase their trading activity, beyond what may have been the norm, there should be adequate controls in place to monitor and manage increased level of trading to avoid unexpected consequences.

One potentially high priority issue noted is the impact of lower fair market values on assets pledged as collateral. Typically, assets pledged as collateral are subject to mark-to-market requirements. The main areas to focus on are likely those assets pledged to derivatives counterparties and to Federal Home Loan Banks.

With the extended period of low interest rates, insurers also generally enjoyed an investment portfolio that had a fair market value in excess of carrying value. That dynamic very likely changed in 2022. How has that impacted liquidity planning and the liquidity stress testing that companies should be doing?

Finally, what can we expect in 2023? If companies (over)-adjusted in 2022, will there be a price to pay in 2023?

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.

PwC NAIC Newsletter

January 2023

The National Association of Insurance Commissioners met in Tampa, Florida for the Fall National Meeting. This newsletter contains information on activities that occurred in meetings from October 7, 2022 to January 31, 2023. 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 ***2***
Special Committee on Race and Insurance ***3***
Innovation, cybersecurity, technology, and privacy initiatives ***3***
Statutory Accounting Principles Working Group ***4***
Risk-based capital ***7***
Valuation of Securities Task Force ***9***
Blanks Working Group ***10***
Financial Stability Task Force and Macroprudential Working Group ***10***
International Insurance Relations Committee ***11***
Climate and Resiliency Task Force ***11***
Restructuring Mechanisms Working Group ***11***
Reinsurance Task Force ***12***
Principles-based reserving ***12***
Life Actuarial Task Force ***13***
Appendix A ***17***
Contacts ***19***

Executive summary

- The Statutory Accounting Principles Working Group (SAPWG) exposed four documents for public comment: i) proposed revisions to SSAP No. 26R, ii) proposed revisions to SSAP No. 43R, iii) an updated issue paper, and iv) a document that details revisions to other SSAPs to reflect proposed guidance under the principles-based based bond project. The proposed SSAP revisions now include proposed transition guidance, including an effective date of January 1st, 2025.

- SAPWG adopted guidance on derivatives and hedge effectiveness similar to U.S. GAAP to allow for use of the portfolio layer method and partial-term hedges. The guidance allows reporting entities greater flexibility in developing hedging strategies; especially related to assets with prepayment risk.

- SAPWG extended INT 22-02 to apply to year-end 2022 and first-quarter 2023. In INT 22-02 SAPWG concluded that a reasonable estimate of the effect of the corporate alternative minimum tax cannot be made and provided a limited-time exception to the valuation allowance and DTA calculations under SSAP No. 101 and Type I subsequent event requirements in SSAP No. 9.

- The newly formed RBC Investment Risk and Evaluation Working Group discussed it's work on developing an approach for determining RBC charges for CLOs and an interim focus on addressing concerns of potential RBC arbitrage involving residual tranches in structuring assets through CLOs.

- The Life RBC Working Group adopted an instructional supplement for applying the newly adopted C-2 mortality risk calculation component to provide guidance on implementation issues for 2022 RBC filings. The working group also exposed for comment further structural and instructional updates and a new financial statement footnote to create a direct link to the annual statement for 2023 year-end RBC filings.

- The Valuation of Securities Task Force (VOS/TF) adopted amendments to the P&P Manual which clarified filing exemption ineligibility for investments with direct or indirect credit exposure to a related party of the insurer, whether as an issuer or otherwise. VOS/TF also exposed separate proposals related to Collateral Loan Obligations and certain other structured securities (referred to as "Structured Equity and Funds") which currently receive preferential RBC treatment compared to if the insurer owned the underlying collateral directly. Both proposals aim to ultimately reduce the potential for what staff view to be RBC arbitrage.

- The Blanks Working Group adopted updates to Schedule DB and the annual statement footnotes to reflect changes to SSAP 86 adopted by SAPWG related to excluded components.

- The Life Actuarial Task Force adopted several updates including adding a requirement in VM-31 to disclose information regarding the company's inflation assumption used in principle-based reserving (PBR) for life products valued under VM-20 and providing guidance on allocating negative IMR (PIMR) in VM-20, VM21, and VM-30 valuations. The task force also adopted AG 49-A to address the practice of some companies illustrating non-benchmark indices in a more favorable manner than benchmark indices.

Special Committee on Race and Insurance

During the Fall National Meeting, the Special Committee on Race and Insurance, which has been organized into several workstreams, heard updates on the progress of each workstream. The committee also adopted the diversity, equity, and inclusion (DE&I) recommendations to the insurance industry and trade associations that had been exposed for comment in September, which included action steps for regulators and companies to increase DE&I in their organizations.

Innovation, cybersecurity, technology, and privacy initiatives

During its Fall National Meeting, the Innovation, Cybersecurity and Technology Task Force discussed multiple issues around the accelerating use of technology within the insurance industry, as well as concerns on the use of data related to that technology. In addition to hearing from its working groups, the task force's Collaboration Forum on Algorithmic Bias provided an update on the work plan for moving forward on the development of a regulatory framework. The committee plans to draft a regulatory framework for the use of artificial intelligence by the insurance industry in the form of a model bulletin that will be principles based (versus prescriptive), rely on external objective standards, and place responsibility on licensees to conduct appropriate diligence with respect to 3rd party data and model vendors versus directly regulating. The committee also heard from several panelists from industry on the feasibility of transparency and explainability to consumers regarding adverse decisions from the use of big data and AI. As part of the Fall National Meeting, the task force received the following significant reports from its working groups:

Cybersecurity Working Group – The working group is focused on performing a baseline review of its state insurance regulator survey results. The survey was designed to identify risks and potential responses to cybersecurity issues across the insurance sector. During the fall they heard a presentation from the Cybersecurity and Infrastructure Security Agency (CISA) on its work on cybersecurity and how insurance regulators can support them and adopted their Summary of Cybersecurity Tools memorandum.

Big Data and AI Working Group – Artificial intelligence (AI) and machine learning (ML) tools can assist in customer engagement, rating, underwriting, claims management, and fraud detection and insurers are investing in these tools for better decision making and to remain competitive. State insurance regulators have expressed concerns about fairness, unintended discrimination, and lack of transparency related to these tools. The working group has been conducting surveys to understand the risk and exposure from the use of AI/ML and to inform a regulatory approach for overseeing and monitoring this activity. The working group met at the Fall National Meeting to discuss the results of the private passenger auto and life surveys as well as feedback on draft model and data regulatory questions for the evaluation of internal and third-party data and model vendors. Comments on the draft model and data regulatory questions will be due February 13th.

Privacy Protections Working Group – In August, the working group received approval to move forward with the creation of one new model to replace existing privacy models #670 (NAIC Insurance Information and Privacy Protections Model Act) and #672 (NAIC Privacy of Consumer Financial and Health Information Regulation) rather than to update them. At the Fall National Meeting, the working group heard an update on federal and state privacy legislation as well as heard consumer and company perspectives on general market practices regarding the use of information during the insurance process. These discussions help the working group understand how consumer and company needs can be addressed through the drafting of a new model on privacy. The draft of new model #674 was exposed for comment at the end of January until April 23.

NAIC Legislative Update - The NAIC legislative team provided updates on the status of two recently passed model rule updates as well as an update on sandbox legislation related to innovation and technology:

- Insurance Data Security Model Law (#668) - this model has been adopted in 21 jurisdictions and is pending in 2 other states

- Unfair Trade Practices Act (#880) - this update includes revised language specific to rebating. As of the Spring National Meeting, it has been adopted in 10 states and is pending in 1 other

- Insurance Intertek sandbox legislation – 5 states have laws in place with 9 additional states indicating they have an innovation regulatory initiative. The National Conference of Insurance Legislators adopted the insurance regulatory sandbox model act during its annual meeting in November.

Statutory Accounting Principles Working Group

Significant actions taken by the SAP Working Group are summarized below. (Appendix A to this Newsletter summarizes all actions taken by the working group. Comments on exposed items are due February 10 unless stated otherwise.

Newly adopted guidance

INT 22-02: Third Quarter 2022 through First Quarter 2023 Reporting of the Inflation Reduction Act - Corporate Alternative Minimum Tax (CAMT): On October 24, 2022, INT 22-02 was adopted to provide reporting guidance regarding the calculations impacted by the CAMT. The interpretation concluded that a reasonable estimate of the effect of the CAMT could not be made for September 30, 2022 interim financial statements and provided a limited-time exception to the valuation allowance and DTA calculations under SSAP No. 101 and Type I subsequent event requirements in SSAP No. 9. A second proposed interpretation (INT 22-03) related to fourth quarter 2022 and interim 2023 reporting was discussed on November 16, 2022. That discussion included concerns raised by Interested Parties related to items that needed to be addressed in 2023 (e.g., how a tax determined at a group level should be allocated to separate company financial statements). As a result, the working group revised INT 22-02 rather than adopting INT 22-03. The revisions, which were adopted as final on December 13, 2022, extend INT 22-02 to apply to year-end 2022 and first-quarter 2023 with the addition of a disclosure requirement regarding whether the entity has determined it is, or is a member of, an "applicable corporation" to determine if CAMT exceeds the regular federal income tax payable.

SSAP 86, ASU 2022-01 – Fair Value Hedging – Portfolio Layer Method (#2022-01) – On December 13, 2022, the working group adopted, as final, revisions to SSAP No. 86—Derivatives. The revisions adopt with modification derivative guidance from *ASU 2017-12, Derivatives and Hedging* and *ASU 2022-01, Fair Value Hedging – Portfolio Layer Method* to include guidance for the portfolio layer method and partial-term hedges. These revisions are effective Jan. 1, 2023, with early adoption permitted. A partial-term hedge is a hedge for a portion of the time to maturity of a fixed rate asset (liabilities are not included contrary to U.S. GAAP). For example, under a partial-term hedging strategy an interest rate swap with a term of two years may be designated as hedging the corresponding interest payments of a fixed-rate debt instrument with a longer term of, say, four years. The portfolio layer method leverages the guidance related to partial-term hedges and permits reporting entities to designate the portion of a closed portfolio of financial assets, beneficial interests secured by financial assets, or a combination of the two, that is not expected to be prepaid during the hedge period as the hedged item in a fair value hedge. The guidance allows an entity to essentially ignore prepayment risk in the hedge relationship even when prepayable assets are present in the closed portfolio. It does so by permitting designation of the portion of the pool not expected to be prepaid, defaulted, or sold as the hedged item.

SSAP No. 19 & No. 73, Leasehold improvements after lease termination (#2021-25) – At the 2021 Fall National Meeting, the working group exposed for comment proposed revisions to SSAP 19 *Furniture, Fixtures, Equipment and Leasehold Improvements* and SSAP 73 *Health Care Delivery Assets and Leasehold Improvements in Health Care Facilities* to address the accounting for leasehold improvements when a leased property is purchased by lessee during the lease term, which would require immediate expensing of all improvements in any scenario when the lease terminates early. The agenda item was exposed for comment on August 10, 2022 and became effective immediately when adopted as final on December 13, 2022. The revisions allow companies that provide direct health care to exclude situations where the real estate lease agreement has a purchase option that contains language that allows leasehold improvements necessary for the functionality of specific health care delivery assets to be excluded from

the purchase price of the real estate. In these limited scenarios, after purchase, the leasehold improvements necessary for the functionality of health care delivery assets would follow existing guidance for health care delivery assets in SSAP No. 73.

Significant exposures/discussions

Principles-based bond proposal project (#2019-21) – Increased innovation has led to asset structures involving the securitization of an increasing variety of collateral, which transforms the underlying collateral into a bond. Regulators have expressed that this evolution has created challenges in understanding the risks, and underlying cash flows, involved in bond portfolios. The current statutory accounting bond definition, which is focused on legal form rather than substance, generally allows any security that represents a creditor relationship to qualify for bond reporting, either as a bond, loan-backed security, or structured security. The classification of an investment as a bond comes with a variety of benefits, including: generally not being subject to investment limitations, asset admissibility, and lower RBC charges based on the NAIC designation. As an example, the potential opportunity exists to report inadmissible assets, or assets that would require a higher RBC charge like equities, as a bond by acquiring it through an SPV as a debt instrument from the SPV. This is true even though the insurer may or may not be in a different economic position than as if they held the underlying assets directly. The intent of the project is to establish principle-based guidance for determining what is a bond, with a focus on substance over form, that will provide regulators and other financial statement users with transparency to understanding the risks present in an insurer's investment portfolio.

The proposed bond definition introduces the concepts of "issuer credit obligations" and "asset backed securities". A bond will be classified as an issuer obligation if the investment represents an instrument where the repayment is primarily supported by the general creditworthiness of an operating entity, and the note is an obligation that has direct or indirect recourse to the operating entity. A bond will be classified as an asset backed security (ABS), if the instruments are issued by entities that have a primary purpose of raising debt capital backed by collateral (financial assets or non-financial assets) that provides cashflows to service debt, and the instrument provides the holder with substantive credit enhancement. Substantive credit enhancement can be summarized as putting the holder of the investment in a different economic position than had had they held the collateral directly. There are additional assessments required for ABS based on whether the ABS is backed by financial or non-financial assets.

Since the Summer National Meeting, the working group exposed four documents for public comment: i) proposed revisions to SSAP 26R, ii) proposed revisions to SSAP 43R, iii) an updated issue paper, and iv) a document that details revisions to other SSAPs to reflect proposed guidance under the principles-based based bond project. The proposed SSAP revisions now include proposed transition guidance, including an effective date of January 1st, 2025. As currently proposed, specific transition guidance is being provided which will override SSAP No. 3's general guidance related to a change in accounting principle. At a high level, any security that no longer qualifies under the bond definition will be reclassified from Schedule D-1 via a disposal at amortized cost and be recognized on the applicable new schedule using the amortized cost as the acquisition cost of that investment. Of the revisions to other SSAPs, the most notable are proposed revisions to SSAP No. 21R to include guidance for debt securities that do not qualify as bonds. Generally speaking, these investments will be considered admitted assets and will be reported on Schedule BA as Other Long-Term Invested Assets; however, if the source of repayment is derived through rights to underlying collateral, then the investment will only qualify as an admitted asset to the extent it is secured by admitted invested assets. Any amounts in excess of the fair value of the underlying admitted invested assets will be nonadmitted. From a measurement perspective, these investments will generally be measured at the lower of amortized cost or fair value with changes in measurement to reflect the lower value or to reflect changes in fair value being recorded as unrealized gains or losses. However, if the debt security did not qualify for bond reporting solely due to a lack of meaningful cash flows, then measurement will follow the guidance in SSAP No. 43R where the carrying value method is dependent on its NAIC designation. Further developments are expected at the 2023 Spring National Meeting.

Proposed nullification of INT 03-02: Modification to an Existing Intercompany Pooling Arrangement (#2022-12): A proposal to nullify INT 03-02 was exposed for public comment on August 10, 2022. INT 03-02 calls for certain transfers between affiliates related to the modification of intercompany pooling

arrangements to be recorded at book value instead of fair value. Interested Parties expressed concerns regarding the proposal, including among others, that any realized investment gains resulting from a transfer would have to be deferred at the common parent reporting entity level, and that transactions which currently qualify for prospective accounting per paragraph 36.d of SSAP No. 62R would no longer do so due to a gain being recognized on the transaction. NAIC staff addressed many of the points raised by Interested Parties and continued to recommend nullification of the interpretation. The Working Group re-exposed the proposal with the expressed goal of identifying specific instances that may require the current guidance to remain.

SSAP No. 21R – Collateral for Loans (#2022-11): On August 10, the Working Group exposed revisions to SSAP No. 21R—Other Admitted Assets to clarify that the invested assets pledged as collateral for admitted collateral loans must qualify as admitted invested assets. This agenda item was drafted to address an inconsistency regarding the collateral loan guidance in SSAP No. 20—Nonadmitted Assets and SSAP No. 21R. Both SSAP No. 20—Nonadmitted Assets and SSAP No. 21R identify the need for adequate collateral that qualifies as an "invested asset." SSAP No. 20 is explicit that the investment asset collateral must qualify as an admitted asset. Recent discussions with state regulators have highlighted that although SSAP No. 21R references the guidance in SSAP No. 20, that it would be beneficial to also note the need for the collateral to qualify as an admitted invested asset. Interested Parties recommended further clarification related to equity investments in a joint venture, partnership, or LLC which would be accounted for under SSAP No. 48 is it were owned directly. Interested Parties expressed the view that for these investments a fair value assessment would be more relevant than whether the investment would not be admitted due to the lack of a GAAP audit. The Working Group re-exposed the agenda item.

New Market Tax Credits / Equity Investments for Tax Credits (#2022-14): The New Market Tax Credits (NMTC) Program was established by Congress in December 2000 and permits individual and corporate taxpayers to receive a non-refundable tax credit against federal income taxes for making equity investments in financial intermediaries known as Community Development Entities (CDEs). CDEs that receive the tax credit allocation authority under the program are domestic corporations or partnerships that provide loans, investments, or financial counseling in low-income urban and rural communities. The tax credit provided to the investors total 39% of the total cost of the investment and is claimed over a seven-year period. The success of the federal NMTC program has led to states adopting their own NMTC legislation. Although the design is an equity investment of stock or interest in a corporation or partnership, which would normally be subject to SSAP No. 48—Joint Ventures, Partnerships and Limited Liability Companies, the intent of NMTC investments is for tax credits and not equity returns. As such, this structure is closer to the existing low-income housing tax credits guidance in SSAP No. 93 than the partnership / LLC guidance in SSAP No. 48. Although SSAP No. 93—Low Income Housing Tax Credit Property Investments provides guidance for an equity investment, that provides tax credits with a limited (or zero) residual investment value, the guidance in SSAP No. 93 is specific to LIHTC programs. NAIC staff recommended, and the Working Group directed NAIC staff to draft new or revised statutory accounting guidance to capture all tax equity investments that qualify under specified criteria and provide federal business tax credit or state premium tax credits. It is anticipated that the proposed guidance will supersede SSAP No. 93—Low Income Housing Tax Credits Property Investments. Subsequent consideration will also occur to review and revise SSAP No. 94—Transferable and Non-Transferable State Tax Credits.

Negative IMR (#2022-19): This agenda item was developed to discuss the interest maintenance reserve (IMR) within statutory accounting, specifically the current guidance for the nonadmittance of disallowed negative IMR. Although the statutory accounting guidance has been in place for several years, the rising interest rate environment has created an increased likelihood for reporting entities to move to a negative IMR position. A negative IMR means that net realized interest related losses which are amortized in the IMR calculation are greater than net realized interested related gains which are amortized in the IMR calculation. A disallowed negative IMR is reported as a nonadmitted asset and amortized to income as a loss over time. A letter from the American Council of Life Insurers (ACLI) dated Oct. 31, 2022, raised concerns with existing statutory accounting requirements on the nonadmittance of disallowed negative IMR noting negative ramifications for insurers. The agenda item was prepared to consolidate background information and support discussion at the meeting; however, no recommendation was put forth by NAIC staff. The Working Group did not adopt any new guidance but exposed the agenda item and requested

industry to provided potential guardrails and details on unique considerations. The working group also directed NAIC staff to coordinate a joint regulator discussion with the Life Actuarial Task Force and to develop a memorandum regarding considerations for state insurance regulators when evaluating potential permitted practices.

Risk-based capital

Affiliated investments instructions and structures exposure – The Life, P/C, and Health RBC working groups previously exposed for comment a proposal to comprehensively revise the RBC formula and instructions for affiliated investments. The proposal includes an expansion of individual affiliate types from 15 to 21 to more closely align with the affiliate types used in the group capital calculation. For example, Subsidiary, Controlled and Affiliated Investments would now include "non-insurance entities with a capital requirement imposed by a regulatory body" and "non-insurance other financial entity without regulatory capital requirements." The proposed instructions would also provide additional detailed examples to assist in implementation. The chair noted that the goal of the revisions is to make the treatment of affiliated entities consistent across all three formulas and better align with their treatment in the GCC.

During the Fall National meeting, the parent committee of the working group, CADTF, referred the previously exposed proposal on this (2022-09-CA) to the Blanks and SAPWG working groups for comment ending January 28.

Investment risk-based capital

The Risk-Based Capital Investment Risk and Evaluation (Investment RBC) Working Group was created to perform a "comprehensive review" of the RBC investment framework in light of a significant number of investment-focused proposals from other task forces and working groups. The Financial Condition Committee handed off two projects: 1) consider a second phase of the bond factors for structured securities and other asset-backed securities, including collateralized loan obligations, and 2) consider specific RBC charges for residual tranches that will now be reported on Schedule BA. Following the adoption of new bond factors for the life RBC formula and as the industry shifts towards more structured securities, regulators believe that they need to start thinking about the increased tail risk of these investments more explicitly in the RBC formula.

The working group continues to discuss next steps to prioritize the items referred to by the Financial Condition committee including a long-term focus developing a scheme for determining RBC charges for CLOs and an interim focus on addressing concerns of potential RBC arbitrage involving residual tranches in structuring assets through CLOs. At the Fall National Meeting, the working group discussed a recommendation from VOS/TF to permit the Structured Securities Group (SSG) to financially model CLOs for the assignment of NAIC designations and their suggestion to assign new NAIC designations categories (e.g. 6.A, 6.B and 6.C) with recommended RBC factors of 30%, 75% and 100%, respectively. The working group heard a presentation from the academy on their work on C1 for CLOs and acknowledged that more discussion needs to occur on possible methods and factors for residuals. The working group then exposed an RBC structural proposal (without specific RBC factors) to facilitate this recommendation as work continues. See further discussion in the VOS/TF Summary below.

Life RBC

C-2 Mortality Risk – Previously, the Life RBC Working Group adopted structural updates for more granular product categorizations for C-2 Mortality (LR025) risk ahead of the adoption of the new factors for 2023 RBC reporting. The categories include life policies with pricing flexibility (e.g., participating whole life insurance), term life without pricing flexibility (e.g., level term insurance with guaranteed level premiums) and permanent life without pricing flexibility (e.g., universal life with secondary guarantees) plus group and credit with remaining rate terms 36 months and less, group and credit with remaining rate terms over 36 months and FEGLI/SGLI. These six categories are an expansion over the current two categories of Individual & Industrial and Group & Credit. The Life RBC Working Group also previously adopted the related instructional and Academy-proposed factor changes necessary to fully implement the

revised morality risk proposal. The factors are tiered into three "buckets" based on reserves held, i.e., higher charges for the first $500 million, and lower charges for the next $24,500 million and over $25,000 million (compared to the current four tiers). Per the Academy, the proposed factors reflect mortality improvement compared to the current RBC mortality factors, which were established in the early 1990s.

During the Fall National meeting, the Life RBC working group discussed their list of additional changes and instructional updates to be made in 2023 based on items identified during the adoption process of the new factors. In January, the working group exposed for comment several of those updates including one to address the treatment of group permanent life policies. The working group also exposed a proposal to add a new financial statement footnote in the Life annual statement. The new footnote is intended to breakdown the net amount at risk by financial statement category and create a direct tie between the RBC worksheets and a financial statement source. Comments are due March 1. The working group also adopted through an e-vote in January a supplement to the instructions to provide additional guidance on implementation issues that have since been identified.

Subsequent to the Fall National meeting, the working group exposed a proposal to align the RBC factors for CM6 and CM7 mortgage with the RBC factors for Schedule A and Schedule BA real estate investments (which were recently adjusted). It would also align the formulas used to apply RBC factors to performing and non-performing mortgages. Comments are due March 16. The working group also exposed a proposal to remove the dual trend test with comments due February 14.

P/C RBC

Catastrophe risk – After years of studying wildfire risk and various catastrophes models for estimating that risk, the Catastrophe Risk Subgroup previously adopted its final "informational only" risk charge (2021-17-CR MOD) for wildfire peril for 2022 RBC filings. (The calculated charge will not be part of the "official" RBC ratio for an as of yet undetermined period.) It also provides an exemption from wildfire modeling for smaller companies and only applies during the informational-only phase of the wildfire risk charge.

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 policyholder's surplus.

During the fall, the Catastrophe Risk Subgroup adopted the January 1st through September 30th U.S. and non-U.S. catastrophe risk event lists.

The subgroup will be considering adding other perils to the Rcat component of P/C RBC. Earlier in the year, the subgroup had an extensive discussion of whether to consider flood risk and heard several presenters conclude that private flood insurance is very immaterial to U. S. insurers. During the Fall National Meeting, the subgroup discussed convective storms modeling and RBC charge development.

Health RBC

H2—Underwriting Risk Component –The Health RBC Working Group previously asked the Academy's Health Solvency Committee to comprehensively review the H2—Underwriting Risk component and the managed care credit calculation in the Health formula to better align the risk factors to economic risk, with a goal of completing the work in time for 2023 RBC filings. The working group received a report from the Academy outlining six options for revising the H2 risk factors: "1) refresh factors based on updated insurer data; 2) develop factors at a more granular product level; 3) develop factors specific to more relevant block sizes and consider indexing factors for cut points to change over time; 4) model risk factors over an NAIC-defined prospective time horizon with a defined safety level that can be refreshed regularly; 5) refresh the managed care credit formula and factors to be more relevant and reflective of common contracting approaches and other risk factors associated with these contracting approaches; and 6)

analyze long-term care insurance underwriting performance to create a more nuanced set of risk factors that considers pricing changes over time."

During the Fall National Meeting, the working group heard an update from the Academy and the areas of focus for the initial underwriting risk factor analysis which are to redesign HRBC pages XR013/XR014 (experience fluctuation risk), develop tiered RBC factors and redesign HRBC pages XR018/XR019 (managed care credit). The working group expects the analysis to be completed by next summer.

The working group is now considering what methodologies should be used to revise the H2 risk factors and has been holding educational sessions. The estimated time frame to complete the work is 18 weeks for the 2023 year-end RBC filings or later.

Valuation of Securities Task Force

The Valuation of Securities Task Force (VOS/TF) discussed the following significant projects and issues. Comments on exposed items are due February 13 unless stated otherwise.

Subsidiary, Controlled and Affiliated (SCA) and Related Party Debt or Preferred Stock Investments: At the Fall National Meeting the VOS/TF adopted an amendment to the P&P manual to update instructions for related party and SCA investments. The amendments were in response to a referral from the SAPWG which raised comments about eligibility for filing exemption (FE) for various affiliated structures. The Securities Valuation Office (SVO) amended the SCA section of the P&P Manual in several ways. First, it was clarified that the section captures not only SCA investments, which are determined by control, but also related party investments, which include various other relationships between an insurer and transaction party. Second, the section was amended so that investments with direct or indirect credit exposure to an SCA or related party of the insurer, whether as an issuer or otherwise, would be ineligible for FE. And third, investments with an SCA or related party entity in the transaction structure but with no direct or indirect credit exposure to those entities (such as an issuing special-purpose entity [SPE], sponsor, originator, manager, etc.) will be FE unless otherwise ineligible for FE pursuant to P&P Manual guidance unrelated to SCA or related party status. However, the amendment is clear that state insurance regulators can, in accordance with Part One of the P&P Manual, require an insurer to file an otherwise FE investment with the SVO for analysis and/or assignment of a designation, making that security ineligible for future FE.

Financial modeling of collateralized loan obligations (CLOs): It is NAIC staff's opinion that an insurer that purchases every tranche of a CLO (a type of security backed by a pool of debt) holds the exact same investment risk as it would if it had directly purchased the entire pool of loans backing the CLO; however, the aggregate RBC factor for owning all of the CLO tranches is not the same that is required for owning all of the underlying loan collateral. Staff recommended the VOS/TF assign the Structured Securities Group (SSG) the responsibility of financially modelling CLO investments so that SSG can assign NAIC designations that create equivalency between securitization and direct holdings.

- In September 2022, the VOS/TF sent a referral to the Capital Adequacy Task Force and its Risk-Based Capital Investment Risk and Evaluation Working Group (Investment RBC) requesting those groups consider adding new RBC factors to account for the tail risk in any structured finance tranche.

- The VOS/TF proposed amendment to the P&P Manual to include CLOs as a financially modeled security in Part Four with an effective date of January 1, 2024. During the Fall National Meeting, the amendment was updated for technical recommendations received, and re-exposed for a 15-day comment period that ended January 9, 2023. The VOS/TF authorized the SSG staff, pending finalization of this amendment, to take on this CLO analytic function and formally request the resources it may need.

- At the Fall National Meeting, the VOS/TF received and exposed a SSG memorandum on the proposed CLO modeling methodology. The scope of the memo did not include scenarios nor

probabilities to be used; both of which are expected to be addressed in a subsequent phase of the project. The exposure deadline for this memo is February 17, 2023.

Structured Equity and Funds: The SVO has identified certain investment structures, which it has termed "Structured Equity and Funds", that allow for RBC arbitrage due to the investments being characterized as Filing Exempt bonds. In response, the VOS/TF exposed a proposed amendment to the P&P Manual that i) defines such investments, ii) makes them ineligible for filing exemption, and iii) directs the SVO to assign NAIC Designations and Categories utilizing a look-through assessment. The proposed amendment would not change how an investment is classified, but it could result in changes to the NAIC designation and category which would have downstream impacts on RBC. The proposal includes the following definition:

> "A Structured Equity and Fund investment is a note issued by, or equity or limited partnership interest in, a special purpose vehicle, trust, limited liability company, limited partnership, or other legal entity type, as issuer, the contractually promised payments of which are wholly dependent, directly or indirectly, upon payments or distributions from one or more underlying equity or fund investments. The inclusion of an intervening legal entity or entities between the Structured Equity and Fund investment issuer and the underlying equity or fund(s), does not change the risk that the insurer investment is ultimately dependent, in whole or in part, upon an investment in equity or one or more funds and its underlying investments. Any design that circumvents this definition, and related examples, through technical means but which in substance achieves the same ends or poses the same risk, shall be deemed a Structured Equity and Fund."

Blanks Working Group

The working group did not meet at the Fall National Meeting but did meet beforehand in November and took the following significant actions. All adopted revisions and exposed proposals are shown on the Blanks Working Group webpage.

Adopted proposals

- Combine the Health Analysis of Operations by Lines of Business Supplement page and the Health Care Receivable Supplement pages into one supplement for health pages filed as a supplement in the Life Annual Statement. (2022-12BWG)

- Modify the Life Insurance (State Page) to include the line of business detail reported on the Analysis of Operations by Lines of Business pages. Adds definitions for life and annuity products to the lines of business definitions in the health appendix. (2022-19BWG)

The working group also exposed for comment the following significant new proposals with a comment period ending February 1:

- Revise Schedule H, Part 5 to remove the 5% of premiums filing exemption which would require both Property Casualty and Life filers to file the Schedule H, Part 5. (2022-15BWG)
- Modify the instructions for Note 8 and Schedule DB to reflect changes to SSAP 86 adopted by SAPWG and disclose and data capture information related to excluded components. (SAPWG 2021-20). (2022-17BWG)

Financial Stability Task Force and Macroprudential Working Group

Private equity considerations – Over the summer, the Macroprudential Working Group adopted a final document entitled "Plan for the List of MWG Considerations - PE Related and Other." The document identifies 13 types of risks, such as companies structuring agreements to avoid regulatory disclosures or requirements and operational, governance and market conduct practices that are influenced by different priorities and level of insurance industry expertise. The final document also includes documentation of

“regulatory responses” to the 13 types of risk listed, interested party comments, and referrals to other NAIC committee groups. During the Fall National Meeting, the work group heard an update on each risk and noted that while the some of the NAIC committee groups have already completed their work on some of these items, more work is to be done and some of the related projects will be ongoing for several years.

Macroprudential Risk Assessment Process – The task force and working group previously adopted their final Macroprudential Risk Assessment Process document, which has a key objective to “identify and assess industry-wide insurance risks.” The guidance includes both qualitative and quantitative assessment factors to reach baseline assessments of industry exposure to various macroprudential risks. The four assessment levels are High, Moderate-high, Moderate-low or Low. The NAIC hoped to publish the full Macroprudential Risk Assessment report at the Fall National Meeting but instead reported that they are still finalizing it. The working group discussed the key topics included in the report; investment trends, changes in ownership, increasing catastrophe risk losses, macroeconomic trends such as inflation and interest rates, cyber security and insurance.

During the Fall National Meeting, the working group discussed the International Association of Insurance Supervisors (IAIS) annual Global Monitoring Exercise for 2022 and the results in their issued report. Private equity ownership in insurance, raising interest rates, high inflation, and climate risks were this year’s macroprudential themes.

Liquidity Stress Test Framework – During the Fall National Meeting, the Financial Stability Task Force adopted its Liquidity Stress Test (LST) Framework for 2022 filings, the goal of which is to allow regulators to “identify amounts of asset sales by insurers that could impact the markets under stressed environments,” which is a life insurance-specific framework. Changes from the 2021 framework were not substantive. The final results for the 22 companies triggering the 2021 LST analysis were also discussed at the meeting and showed, “a nil effect of potential asset sales to the capital markets in the most severe scenarios.”

International Insurance Relations Committee

IAIS update – In December, the Financial Stability Board (FSB) announced its decision to discontinue the global systemically important insurer (G-SII) identification process that was replaced with the IAIS Holistic Framework for systemic risk, which began implementation in 2020. The holistic framework moves away from being solely an entities-based approach and incorporates an activities-based approach recognizing that systemic risk may arise not only from distress or failure of an individual insurer but also from the collective exposures and activities of insurers at a sector wide level.

Climate and Resiliency Task Force

The Climate and Resiliency Task Force met at the Fall National Meeting and discussed state actions to incentivize mitigation and resiliency and discussed international updates from the International Association of Insurance Supervisors (IAIS) Climate Risk Steering Group’s three workstreams. In October, the Financial Stability Board (FSB) published its final report on supervisory and regulatory approaches to climate-related risks. From a federal update, the NAIC continues to support the federal Disaster Mitigation and Tax Parity Act.

Solvency Workstream – Following recent efforts and receipt of comments, the Solvency Workstream developed three referrals. The referrals—to the Property and Casualty Risk-Based Capital (E) working Group, Financial Analysis Solvency Tools (E) Working Group, and the Financial Examiners Handbook (E) Technical Group—provide high-level principles for the groups to consider and develop as appropriate for inclusion in relevant financial solvency regulation manuals. Work will begin on the referrals in 2023.

Restructuring Mechanisms Working Group

The Restructuring Mechanisms Working Group did not meet at the Fall National Meeting but for several years has been working to develop a white paper to summarize the various industry wide processes for

insurance companies to restructure liabilities with finality, primarily through the use of two types of transactions: insurance business transfer (IBT) and corporate division (CD). The working group previously exposed a list of comments received with a request that parties develop specific language that could be added to the white paper to address the comments. (While the working group did discuss certain specific edits, the white paper itself is not being re-exposed at this time, i.e., only the interested party comments' list to consider suggestive edits.) The Subgroup also previously exposed its draft documents Foundational Principles and Best Practices Procedures for IBT/ Corporate Divisions for regulator review of proposed restructuring transactions. The subgroup also discussed several proposed options for modifying the P/C RBC formula for "runoff companies."

Reinsurance Task Force

During the Fall, the Reinsurance Task Force re-approved the status of Bermuda, France, Germany, Ireland, Japan, Switzerland, and the UK as qualified jurisdictions and re-approved Bermuda, Japan, and Switzerland as reciprocal jurisdictions.

The working group also reported that all 56 jurisdictions have adopted the 2019 revisions to the Credit for Reinsurance Model Law (#785) and the Credit for Reinsurance Model Regulation (#786) ahead of the required date under the Covered Agreement and there was no preemptive action taken.

Principles-based reserving

Valuation Manual amendments

During LATF calls between the 2022 Summer National Meeting and 2022 Fall National Meeting several Amendment Proposal Forms (APFs) and related guidance were discussed, exposed and/or adopted as follows:

Adopted guidance

APF 2022-06 Adds a requirement in VM-31 to disclose information regarding the company's inflation assumption used in principle-based reserving (PBR) for life products under VM-20. The change restores mention of the inflation rate assumption to VM-31 that had inadvertently been removed.

NAIC Staff Guidance on Allocating Negative IMR (PIMR) In VM-20, VM21, and VM-30 LATF members adopted a NAIC staff memorandum as their recommendation for year-end 2022 while the Statutory Accounting Practices (E) Working Group (SAPWG) considers a longer-term evaluation of IMR. The recommendation is that "the allocation of IMR in VM-20, VM-21, and VM-30 should be principle-based, "appropriate", and "reasonable". Companies are not required to allocate any non-admitted portion of IMR (or PIMR, as applicable) for purposes of VM-20, VM-21, and VM-30, as being consistent with the asset handling for the non-admitted portion of IMR would be part of a principle-based, reasonable and appropriate allocation. However, if a company was granted a permitted practice to admit negative IMR as an asset, the company should allocate the formerly non-admitted portion of negative IMR, as again a principle-based, reasonable and appropriate IMR allocation would be consistent with the handling of the IMR asset. This recommended guidance is for year-end 2022, to address the current uncertainty and concerns with the "double-counting" of losses".

NAIC Staff Recommendation on a Replacement for the London Interbank Offered Rate (LIBOR) Memorandum suggests 1) the adoption of Secured Overnight Financing Rate (SOFR) swap spreads as the replacement for LIBOR swap spreads effective 12/30/22; 2) The approach to be used in calculating current and long-term swap spread curves as of 12/30/22; and 3) technical implementation details as recommended by the American Academy of Actuaries.

APF 2022-07 clarifies the intent and calculation of the mortality adjustments to the CSO table when anticipated mortality exceeds the prescribed CSO table. It does not change the current requirement of VM-20 but provides clarification in the wording. This APF was exposed for comment at the Fall National Meeting and adopted by LATF on January 26.

APF 2022-08 clarifies VM-31 documentation and VM-G governance requirements for groups of contracts for which reserves are computed using the Alternative Methodology in VM-21 and are not subject to a principles-based valuation. In particular, a company that computes reserves under the Alternative Methodology defined in VM-21 must still develop a sub-report for that group of contracts under VM-31. This APF was exposed for comment at the Fall National Meeting and adopted by LATF on January 26.

Other VM Project Updates

VM-22 - PBR for fixed annuities

LATF heard an update from the VM-22 Subgroup on activities related to fixed annuity PBR. The subgroup has met routinely since April to address nearly 400 comments in ten letters received on the July 2021 exposed draft of NAIC Valuation Manual Section II and VM-22 requirements. On October 4, the subgroup exposed another draft, with an exposure period ending January 2, 2023. Notable changes include:

- A small company exemption to be based on fixed annuity reserves would not apply to products with guaranteed living benefits.
- Scope to include elements related to nonforfeiture limits and return of principal and to exclude index-linked variable annuities (subject to VM-21).
- Modified approach to allocate reserves to non-variable products.
- Expanded provisions for longevity reinsurance.
- A new section regarding valuation rate for formulaic reserves on payout annuities.

Since October, subgroup discussions have focused on policyholder behavior and mortality assumptions, and on methodology of a standard projection amount calculation, particularly the mechanics of the standard projection. Whether the standard projection amount will serve as a minimum reserve floor will be determined by a LATF drafting group.

Field testing, a joint effort of the Academy, the ACLI and the NAIC, is targeted for 2023 but is dependent on progress on the Economic Scenario Generator and its field tests. If the ESG field tests are completed in 2023, completion of VM-22 field testing in 2023 could lead to an effective date of 1/1/2025 with a three-year transition period for implementation.

Life Actuarial Task Force

Actuarial Guidelines

Actuarial Guideline on AAT - *Actuarial Guideline LIII—Application of the Valuation Manual for Testing the Adequacy of Life Insurer Reserves* (AG 53) was adopted by the NAIC at the Summer National Meeting, with corresponding reporting templates approved by LATF on September 8. The guideline defines and prescribes requirements for modeling, testing and documenting valuation of complex (high yielding) assets used in asset adequacy testing, and is effective for reserves reported in the December 31, 2022 and subsequent annual statutory financial statements. There has been no further activity on this matter.

Actuarial Guideline 49-A - LATF members adopted revisions to *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) at the Fall National Meeting. The revisions address the practice of some companies illustrating non-benchmark indices in a more favorable manner than benchmark indices. Proposed changes to AG 49-A had been exposed and discussed since July, and at this meeting LATF members adopted a “quick-fix” that prescribes a different cap on the Annual Rate of Indexed Credits that

can be illustrated for policies sold after May 1, 2023 (2 months after anticipated NAIC adoption at the Spring National Meeting in March 2023). Consideration of additional proposals to address issues with IUL illustrations are ongoing at the IUL Subgroup level (see below).

Other LATF Activity

Economic scenario generator (ESG) implementation project

Following the Summer National Meeting and at the meeting in Tampa LATF members received updates from the Academy ESG Work Group and NAIC staff on matters related to the ESG Field Test and ESG model development. Results of the field test are delayed due to some companies needing more time to submit information, and to additional time required to confirm results with companies and answer questions. Recently formed drafting groups will begin meeting in January 2023 and given the continued ESG development work and need for a second field test, implementation of the new ESG is expected no earlier than 2025.

ESG Field Test:

In Tampa, NAIC staff presented LATF members with results from the ESG Qualitative Survey, which was part of the ESG field test conducted from 6/1/22 through 11/29/22. The ESG Qualitative Survey was designed to aid in understanding and interpreting quantitative field test results to be presented at a later date, to support the work of newly formed VM-20/VM-21 ESG drafting groups, and to summarize company comments relating to future ESG development and a second field test. Of 41 field test participants, 40 responded to the survey. Survey question topics covered characteristics of the baseline run relative to reported annual statement data, inforce file adjustments, changes made for negative interest rates, other modeling and assumption changes, and fund mapping changes. Participants also commented on several areas including scenario subset selection methodology, linkage between interest rates and equity returns, Stochastic Exclusion Ratio Test and Deterministic Reserve scenarios, and ESG calibration and acceptance criteria.

ESG Models:

The Academy is delivering to LATF members a series of presentations on a framework for developing, evaluating and implementing ESGs including development of “stylized facts” and acceptance criteria for evaluating stochastic sets of economic scenarios produced by an ESG. Stylized facts are qualitative statements about the economic variables being simulated and are a key prerequisite for model selection and development of acceptance criteria; acceptance criteria are quantitative in nature and used to evaluate scenario sets and help ensure the ESG is performing consistent with stylized facts.

During an October LATF call the Academy presented an independent set of corporate model stylized facts and acceptance criteria along with a proposed simplified corporate model, and this discussion continued at the Fall National Meeting. The stylized facts recommended by the Academy for the corporate model are generally consistent with those Conning presented for the GEMs model, and the acceptance criteria are consistent with the defaults and spreads prescribed in VM-20 *Requirements for Principle-Based Reserves for Life Products*. The Academy’s simplified model is fully documented, specified, and calibrated, which may allow for deeper review and understanding relative to the Conning GEMs model which is proprietary and closed. The simplified model could replace the Conning GEMs Corporate model if LATF members chose to proceed that way.

At the meeting in Tampa LATF also heard the Academy presentation on ESG interest rate stylized facts and acceptance criteria. The proposed stylized facts and acceptance criteria are consistent with the preliminary goals for interest rates and related boundary guidance presented to LATF in December 2020 and February 2022, respectively. The proposed stylized facts and acceptance criteria relate to the level, volatility and term structure of interest rates, and a proposal for “low-for-long” criteria is under development. Acceptance criteria include “buffers” on rate levels to indicate variations that may be considered extreme. Regulator discussion focused on how negative interest rates would be captured by the model (considering the current interest rate environment) and on how the buffers were set. Time expired before all discussion had concluded and discussion on this topic will continue on a future call.

Materials are posted on the NAIC website under the Economic Scenarios section of the Principle-Based Reserving webpage.

Index-Linked Variable Annuity Subgroup
Between September and November 2022, the Index-Linked Variable Annuity (ILVA) subgroup exposed three more drafts of the ILVA Actuarial Guideline proposal and met to review comments from its exposure drafts, focusing on the technical aspects of market value adjustment (MVA) and guidance language updates. 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.

At the Fall National Meeting LATF members adopted the ILVA Actuarial Guideline. The adopted draft guideline is contained in the LATF Fall National Meeting materials.

Indexed Universal Life Illustration Subgroup
Following the adoption of revisions to AG 49-A at the Fall National Meeting, the Indexed Universal Life (IUL) Illustration Subgroup discussed comments received on the recent exposure for public comment regarding the subgroup's charge to provide recommendations for consideration of changes to the Life Insurance Illustrations Model Regulation (#582) to address broad IUL illustration issues. Comments were received from the ACLI, Academy and several insurers, and these groups discussed their comments at the Fall National Meeting. Birny Birnbaum, Center for Economic Justice, also spoke on this topic at the meeting.

Lively debate ensued around whether LATF should recommend to the Life Insurance and Annuities (A) Committee that Model #582 be opened to address technical matters specific to IUL policy illustrations or life illustrations generally, or whether more technical work is required before such recommendation is made. All parties acknowledged a need for life insurance product illustrations to be more transparent and better understood by consumers. Some commenters were focused on technical issues related to IUL illustrations and recommended more work at the subgroup level, while others noted a need for broader changes to illustrations to improve consistency across different products. Mr. Birnbaum advocated for a timely recommendation to A-Committee to open Model #852 for revisions, citing a need for input from experts in consumer financial disclosure to address broader issues with illustration complexity. After lengthy and passionate discussion LATF members voted to send the matter back to the subgroup level to better articulate the recommendation to the (A) Committee.

The 2023 Spring National Meeting of the NAIC is scheduled for March 22-25 in Louisville, Kentucky. 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, Jen Abruzzi, at jennifer.abruzzi@pwc.com.

Newsletter Disclaimer. Since a variety of viewpoints and issues are discussed at task force and committee meetings taking place at the NAIC meetings, and because not all task forces and committees provide copies of meeting materials to industry observers at the meetings, it can be often difficult to characterize all of the conclusions reached. The items included in this Newsletter may differ from the formal task force or committee meeting minutes.

In addition, the NAIC operates through a hierarchy of subcommittees, task forces and committees. Decisions of a task force may be modified or overturned at a later meeting of the appropriate higher-level committee. Although we make every effort to accurately report the results of meetings we observe and to follow issues through to their conclusion at senior committee level, no assurance can be given that the

items reported on in this Newsletter represent the ultimate decisions of the NAIC. Final actions of the NAIC are taken only by the entire membership of the NAIC meeting in Plenary session

Appendix A

This table summarizes actions taken by the SAP Working Group since the Spring National Meeting on open agenda items. For full proposals exposed and the status of agenda items that were not actioned during the period, see the SAP Working Group webpage.

Issue/ Reference #	Status	Action Taken/Discussion	Proposed Effective Date
SSAPs 68 & 97 – Goodwill (#2019-12 and #2019-14)	Deferred	No discussion at the Fall National Meeting – deferred discussion for a subsequent call or meeting	TBD
Principles-based bond proposal project (#2019-21)	Exposed	Exposed proposed revisions to SSAP No. 26R, proposed revisions to SSAP No. 43R, an updated issue paper, and a document that details revisions to other SSAPs to reflect proposed guidance under the principles-based based bond project.	January 1, 2025
SSAPs 19 and 73 – Leasehold Improvements after Lease Termination (#2021-25)	Adopted	Revisions clarify that leasehold improvements shall be immediately expensed upon lease termination unless limited exceptions are met.	December 13, 2022
Conceptual Framework – Updates (#2022-01)	Adopted/ Re-exposed	The working group adopted changes to the APP Manual Preamble and SSAP 4 to incorporate recent changes to the FASB's Conceptual Framework for Financial Reporting. The SSAP No. 5 revisions are still pending and have been re-exposed.	December 31, 2022 annual statements
SSAP 86 – Fair Value Hedging – Portfolio Layer Method (#2022-09)	Adopted	Revisions adopt with modification derivative guidance from ASU 2017-12, Derivatives and Hedging and ASU 2022-01, Fair Value Hedging – Portfolio Layer to include guidance for the portfolio layer method and partial-term hedges.	January 1, 2023 (early adoption permitted)
SSAP 36 –Troubled Debt Restructuring and Vintage Disclosures (#2022-10)	Adopted	Revisions reject ASU 2022-02: Troubled Debt Restructurings and Vintage Disclosures for statutory accounting SSAP 36.	December 13, 2022
SSAP 21R – Collateral for Loans (#2022-11)	Re-exposed	Exposed revisions clarify that invested assets pledged as collateral for admitted collateral loans must qualify as admitted invested assets.	TBD
SSAP 61R, 62R, and 63 – Review of INT 03-02 (#2022-12)	Re-exposed	Exposure proposes to nullify Interpretation 03-02: Modification to an Existing Intercompany Pooling Arrangement.	TBD
SSAP 25 and 97 – Related Party – Footnote Updates (#2022-13)	Adopted	Revisions identify foreign open-end investment funds as a fund in which ownership percentage is not deemed to reflect control unless the entity actually controls with the power to direct the underlying company.	December 13, 2022

Issue/ Reference #	Status	Action Taken/Discussion	Proposed Effective Date
SSAP 9 and 101 – Third Quarter 2022 through First Quarter 2023 Reporting of the Inflation Reduction Act – Corporate Alternative Minimum Tax (#INT 22-02)	Adopted	Revisions extend INT 22-02 for Dec. 31, 2022, and first quarter 2023 statutory financial statements. This INT provides an exception that does not require entities to assess valuation allowance and deferred tax asset impacts, tax estimates from the Inflation Reduction Act CAMT for third quarter 2022 through first-quarter 2023. It also provides subsequent event exceptions and disclosures.	December 13, 2022
SSAP 9 and 101 – Inflation Reduction Act – Corporate Alternative Minimum Tax (#INT 22-03)	Exposed	This INT addresses fourth quarter 2022 and interim 2023 reporting. It requires reporting when reasonable estimates can be made. It provides some subsequent events exceptions regarding the CAMT, to allow estimates to be updated as information becomes available.	TBD
SSAP 93 – Low-Income Housing Tax Property Credits (#2022-14)	Exposed	Exposure proposes a new or revised SSAP to expand current guidance to capture all tax equity investments that qualify under specified criteria and provide general federal business tax credit or state premium tax credits.	TBD
SSAP 25 - Accounting for and Disclosures about Transactions with Affiliates and Other Related Parties (#2022-15)	Exposed	Revisions clarify that any invested asset held by a reporting entity which is issued by an affiliated entity, or which includes the obligations of an affiliated entity, is an affiliated investment.	TBD
SSAP 100R - Fair Value Measurements (#2022-16)	Exposed	Exposure proposes to adopt with modification ASU 2022-03, Fair Value Measurement of Equity Securities Subject to Contractual Sale.	TBD
SSAP 34 - Investment Income Due and Accrued (#2022-17)	Exposed	Exposure proposes additional disclosures for interest income due and paid-in-kind (PIK) interest included in current principal balances. Also supports a blanks proposal to data-capture the disclosure.	TBD
SSAP 105R - Working Capital Finance Investments (#2022-18)	Exposed	Exposure proposes to reject ASU 2022-04, Disclosure of Supplier Finance Program Obligations for statutory accounting.	TBD
SSAP 7 - Asset Valuation Reserve and Interest Maintenance Reserve (#2022-19)	Exposed	Exposure of the agenda item on interest maintenance reserve (IMR) guidance, focusing on negative IMR. Requested industry to provide potential guardrails and details on unique considerations. Directed NAIC staff to coordinate a joint regulator discussion with the Life Actuarial (A) Task Force and to develop a memorandum regarding considerations for state insurance regulators.	TBD

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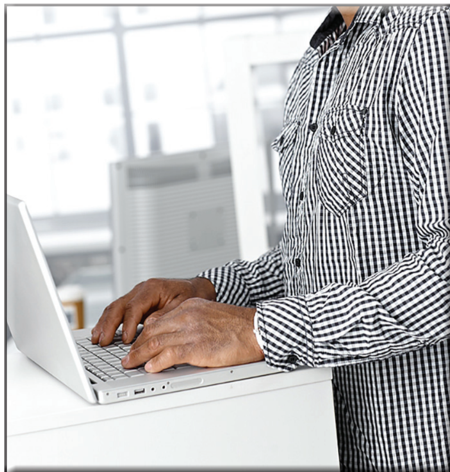

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