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CRE READING PROGRAM INSTRUCTIONS

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You can earn **2 CRE credits** for each of the 4 quarterly issues by taking a simple, online test after reading each issue. There will be a total of 9-20 questions depending on the number of articles in the issue. The passing grade is 66%. To take the test, read all of the articles in the issue. Go to the Members section of the SOFE website to locate the online test. This is a password-protected area of the website, and you will need your username and password to access it. If you experience any difficulty logging into the Members section, please contact **sofe@sofe.org**.

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The questions are on the following page. Good luck!

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CRE Reading Program Questions

All quizzes MUST be taken online.

*Questions will be **available online January 28, 2020.***

How Fair Rates Will Encourage Safer *(and Slower)* Driving: An Actuarial Approach to Behavioral Ratemaking

True or False Questions — Submit Answers Online

1. The difference between behavioral ratemaking and predictive modeling is that behavioral ratemaking relies on attributes that have been shown to cause or increase severity of accidents, where predictive modeling uses correlation.
   a. True
   b. False

2. Behavioral ratemaking can cause traditional insurers problems if they do not adapt to the changing pricing structure in the market, and result in possible adverse selection.
   a. True
   b. False

3. There are three requirements that must be addressed for behavioral pricing to work: monetary incentive for consumer, drivers start exhibiting safer driving habits, and policyholders will have lower loss costs and rate adjustments are very slowly implemented.
   a. True
   b. False

4. It is very easy for a driver to change from unsafe driving habits to safe driving habits.
   a. True
   b. False

5. Humans appear to be better drivers in determining where in their lane to drive and in bad weather than automated vehicles.
   a. True
   b. False

Cybersecurity Risk is Everywhere and There are Plenty of Options to Think About

Multiple Choice and True or False Questions — Submit Answers Online

6. In most cases the preliminary cybersecurity assessment includes a management interview.
   a. True
   b. False

7. Companies with a comprehensive approach to cybersecurity are less likely to share their accomplishments with examiners.
   a. True
   b. False

8. It is possible, but highly unlikely, that a Company with strong cybersecurity controls can have weak ITGCs.
   a. True
   b. False

9. The Company's information security program (ISP) should include the following:
   a. Mandatory multi-factor authentication
   b. A designated security person or officer
   c. Data destruction policy
   d. B and C

10. Key cybersecurity areas noted in recent legislative activity include:
    a. Cybersecurity insurance standards
    b. Security of connected devices
    c. The creation of cybersecurity task force
    d. All of the above

Market Briefing Q4 2019
Asset Valuations in a Volatile and Uncertain Market

Multiple Choice and True or False Questions — Submit Answers Online

11. Eligible Bond exchange-traded funds (ETFs) can be reported at Net Asset Value or "systematic value".

    a. True
    b. False

12. Which statutory valuation method is most appropriate for an insurer's investment-grade Bond holdings?

    a. Discounted Cash Flows
    b. Amortized Cost
    c. Fair Market Value
    d. SVO Carrying Value

13. A decline in long-term treasury yields is likely to increase the market valuation of fixed income investments.

    a. True
    b. False

14. What is the most likely source of valuation for Private Equity Fund investments?

    a. Matrix Pricing
    b. Amortized Cost
    c. Mark-to-Market
    d. Fund Managers

15. Property & Casualty insurers are required to use lower of cost or fair value reporting when Bond holdings are rated below an NAIC 2 Designation.

    a. True
    b. False

Winter 2019 NAIC National Meeting Notes

True or False Questions — Submit Answers Online

16. The Statutory Accounting Principles Working Group adopted amendments to SSAP 25 – "Related Parties, Disclaimers of Affiliation and Variable Interest Entities", including guidance that any non-controlling ownership greater than 10% results in a related party classification regardless of any disclaimer of control or disclaimer of affiliation.

    a. True
    b. False

17. The Valuation of Securities Task Force adopted guidance that included the creation of a new asset class, "ground lease financing" transactions.

    a. True
    b. False

18. The Financial Regulation Standards and Accreditation (F) Committee adopted the 2019 revisions to the Credit for Reinsurance Model Law (#785) and the Credit for Reinsurance Model Regulation (#786), which conform to the EU and UK Covered Agreements, as accreditation standards. States must adopt the revisions by September 1, 2022.

    a. True
    b. False

19. The Terrorism Insurance Implementation Working Group provided an update on TRIA (for which the current authorization expires December 31, 2020) indicating that a seven-year TRIA reauthorization bill passed both the House and the Senate with bipartisan support.

    a. True
    b. False

20. The Mortgage Guaranty Insurance Working Group adopted a revised Model Act (#630) and a Mortgage Guaranty Insurance Standards Manual.

    a. True
    b. False

How Fair Rates Will Encourage Safer (and Slower) Driving: An Actuarial Approach to Behavioral Ratemaking

By Michael Dubin, FCAS, FSA, MAAA, FCA
Baker Tilly Virchow Krause, LLP

Abstract

Many people regularly drive above the posted speed limit. This type of behavior is risky and the cause of much loss, including loss of life. The World Health Organization has identified speeding as a global health issue. The insurance industry can reduce this loss by implementing a new approach to ratemaking, behavioral ratemaking. The use of current driving speed data (and other telematics data) to adjust insurance pricing on a real-time basis can be used to encourage safer driving behavior and a safer society. In other words, in this model a driver would pay real time for how they drive as they drive. Hereinafter "behavioral ratemaking" is used to denote insurance rates that change in real time. This article discusses what behavioral ratemaking is and how it would operate in this context. It discusses how behavioral rates could be developed, the advantages they present and the logistical, technological and regulatory obstacles preventing their implementation.

What is behavioral ratemaking?

Anyone who has taught a child to drive knows that the most important way to reduce the chance of an accident is through safe driving behavior. Since the insurance industry pays for the financial consequences of accidents and other insured events, it would seem they would and should be a promoter of safety as well. "Hazard reduction incentives" are a consideration in designing any insurance risk classification system. However, traditional auto insurance ratemaking uses classification systems that strive to place drivers into classes with homogenous risks based on factors such as age, sex and marital status that do not directly measure risk and do not utilize driving behavior. When behavioral risk is considered in traditional ratemaking, such as in claims or violations history, past rather than current behavior is measured. Walters states, "One of the reasons for classifying is the impossibility of knowing the risks true expected loss or accident likelihood." This is no longer as clear as it was in 1981 as recent technology rapidly advances the potentials of ratemaking. With the introduction of telematics data on driving behaviors, actuaries can now, in a way that was impossible previously, transform ratemaking to utilize information that directly impacts risk. Behavioral ratemaking adjusts premium based on controllable driving behavior immediately. Behavioral ratemaking recognizes behavioral influence on the accident likelihood, and the potential severity of the accident, at each moment of actual driving. The overall amount of claims would not change - except for the significant impact this measurement should have on actual behavior.

There are many ways to implement these rate adjustments – each with practical issues to be resolved. In any case, they would be based on behaviors in real time. This is not the same as using historical behaviors of the driver to adjust the rate. Behavioral ratemaking provides the insured with immediate premium savings for continuous behavioral improvements.

How is technology expected to transform insurance?

With advances in technology, futurists project many industries to be disrupted by innovation. Insurance is no different. InsurTech refers to the use of technology innovations designed to squeeze out savings and efficiency from the current insurance industry model, including using new streams of data from internet-enabled devices to dynamically price premiums according to observed behavior. It has been over a decade since the invention of a telematics device to provide real time input to insurers. InsurTech ideas potentially impacting ratemaking include: increased use of predictive modelling, using telematics or internet data to create improved ways to classify drivers, and mileage based insurance. When the InsurTech sector first developed, many in InsurTech with little insurance expertise believed that new technologies would be able to immediately disrupt the industry and allow for new companies to quickly begin taking significant market share from the established ones.

Such disruption in the insurance market has not transpired. Currently, experts in InsurTech generally agree that there is no standout disruptive technology that will significantly impact market shares of the largest insurers any time soon and many insurtech startups still require help from the major insurers. Industry executives have proclaimed that there is no technology on the horizon that will cause major disruptions in insurance company market shares in the near term.

Behavioral Ratemaking using real time telematics data may cause disruptions to the industry sooner than they realize. With the increased use of artificial intelligence, smart cars and driving algorithms, insurance ratemaking will need to keep up. Despite the slow start, it is clear that as technology advances new ideas are needed to align insurance better with the future of transportation and regulation.

Why is behavioral ratemaking beneficial?

Behavior ratemaking has many benefits. Benefits to customers include: immediate financial rewards for driving safer; provides proven methods to drive safer; and allows individuals and fleet managers to better manage driving risk.

Benefits to insurers using behavioral ratemaking include improved ratemaking which ties premiums charged to actual behavior and risk associated with that behavior. Higher identified risks are charged more, thereby generating increased revenue for high risk behaviors. There will be reduced insurer losses to the extent safer driving practices caused by the application of behavioral rating process are implemented. This leads to more accurate pricing as customers pay an amount more closely aligned to driving risk.

Behavioral ratemaking benefits to society include reduced accident frequency and severity to the extent some drivers adopt safer behaviors. Data collected over time showing how compliance with the posted speed limits impacts losses will have the potential to assist with better, safer programming of self-driving cars.

How is behavioral ratemaking different from predictive modelling?

It is well known in statistics that correlation does not imply causation. It is preferable if rating variables are based on characteristics that are causal in nature. Predictive modelling relies on finding attributes that are correlated with accidents to make predictions, while behavioral ratemaking relies on attributes that have been shown to cause or increase severity of accidents. Many companies, old and new, use predictive modelling to find better and more complex rating variables and classification systems that improve actuarial soundness. Predictive modelling is similar to traditional ratemaking in that historical information is relied upon to determine current rates. While this does lead to lower rates for safer drivers, the process takes time to design new pricing mechanisms and prove they work better. With predictive modelling (as well as traditional ratemaking), safer insureds are asked to trust the insurer that they will eventually be charged lower premium for their safer driving.

There is a necessary delay between when the insurer confirms the safe driving and can reduce premium for the insured. Also, it is not necessarily intuitive which new rating variables or classification systems correlate with lower future costs, so it would be too risky for an insurance company to implement changes based on predictive modeling in conjunction with telematics data without adequate proof that the new rates are better. Combined with a pre-existing distrust of insurance companies, this delay in premium recognition of safer driving reduces the ability of predictive modelling based incentives to take hold. These companies hope that safer drivers will have enough confidence in the possibility of future lower safe driver rates to choose the company before the new rates are fully implemented.

Also, without clear correlations, predictive modeling alone may not find opportunities to improve ratemaking as quickly as with the addition of behavioral ratemaking. This can be shown in the following simplified example with realistic assumptions. Let's assume older drivers are more risky than younger drivers and that older drivers tend to drive slower than younger drivers. In this example, slow driving would be correlated with higher risk when we look at the population as a whole. However, if we look at either subgroup individually we would likely find that slower driving is actually correlated with lower risk. And for any individual in either group, risk can be reduced by driving slower. This is the most important aspect that represents behavioral ratemaking's untapped potential to improve fairness.

Behavioral ratemaking is different in that drivers see immediate financial rewards for safe driving behavior, in addition to additional benefits for continued improvement in driving behavior. Behavioral ratemaking uses telematics data to make intuitive adjustments to traditional ratemaking techniques. Speeding is but one example of a behavioral characteristic which may impact safety. For example, a company would implement a large discount for drivers who agree to abide by the speed limit. In addition to driving speed, the company would rely on telematics mapping data for location of insured vehicles and corresponding speed limit. A surcharge would be assessed on each mile driven at a certain number of miles per hour over the posted speed limit. An additional discount can also be immediately provided for driving within a certain range of the speed limit. Important assumptions are that safer drivers will be drawn to a rating system that rewards them for safer driving and that they will drive more safely when rewarded. Since the starting point is traditional rates and rating plans, the use of new intuitive rating variables will improve upon overall actuarial soundness. Traditional ratemaking techniques can then be used to adjust rates and adjustments as new data comes in for the population as a whole.

Why will behavioral pricing be disruptive?

Once behavioral pricing takes off (with even a subset of insurance companies) adverse selection may create difficulties for the remaining more traditional insurance companies to co-exist without behavioral pricing. The effect could be similar to the introduction of nonsmoker/smoker pricing in the life insurance market. Once nonsmoker discounts were introduced by one company they, practically, needed to be introduced by all for similar reasons. As safer drivers self-select discounts for their own safer driving, insurers using traditional pricing exclusively will be left with less safe drivers, and higher accident frequency and claims costs. Drivers who do not modify driving behavior will self-select the increasing costs of traditional insurance. There is also less risk to insurance companies using behavioral pricing because riskier driving behavior will result in immediate rate surcharges and therefore, increased revenue.

Regulations have always required fair rates by disallowing unfair discrimination. Regulators rely upon actuaries to certify that rates are not unfairly discriminatory. The rating systems that developed in the twentieth century, based primarily on uncontrollable factors such as location, age, gender and marital status, were the fairest possible at the time. Once regulators and actuaries become comfortable with rating factors more directly linked with hazard, it will become apparent that traditional rating plans alone unfairly discriminate against safe drivers.

It is important to note that the business of insurance requires cross-subsidies. No rating mechanism can accurately predict the exact cost of each insured. Actuarially sound rating reduces cross-subsidies. There may also be an ethical limit as to how much cross-subsidies can be reduced. For example, in health insurance it is unacceptable to classify risks based on pre-existing conditions.

Changing driving behavior will be disruptive to more than just insurance. Americans spend billions of hours per year driving. As safety becomes more prominent in the mindset when getting behind the wheel, many other industries are potentially disrupted by this potential shift (such as automobile manufacturing, advertising, infrastructure design, law enforcement, etc.)

How can behavioral pricing take hold?

In order for ratemaking changes to take hold in the automobile insurance industry, there are three requirements which need to be addressed. These have not been adequately addressed by InsurTech thus far, which is the reason for the slow start to disruption.

1. From a customer perspective new changes need to be associated with an immediate monetary incentive. In other words, it needs to be cheaper for at least the safer half of drivers. Otherwise, customers will not move to the new system in a large scale. Would Uber have been able to overcome regulatory challenges if it weren't cheaper than traditional taxis?

2. From an actuarial perspective, telematics confirmation will be needed for the assumption that customers who do sign on will exhibit safer driving behavior. The safer behavior will be due to both attracting safer drivers to begin with, and all drivers driving more safely after they sign up.

3. Investors in behavioral pricing need assurances that customers signing on will have lower loss costs and that rate adjustments can be quickly implemented.

Insurance in the US is regulated on a state by state basis. While statutory guidelines for rates are similar among states, each state is responsible for determining and enforcing what is acceptable for its own residents. Behavioral pricing should lead to rates that are more actuarially sound than traditional rates. In order for behavioral pricing to take hold, insurance companies wishing to spearhead implementation would need to collaborate with individual state regulators. Three advantages to behavioral pricing over traditional pricing that should be important to regulators are: the incentivizing of safety, reduced likelihood of unfair discrimination, and more accurate rating.

Improving safety

One way to enable meeting all three of the aforementioned requirements is to identify, encourage and reward safe behavior. Doing so will reduce rates for policyholders while maintaining or improving profitability for insurance investors and actuarial soundness of rates.

Consideration of insured behavior with respect to safety is an important component of actuarial fairness that has not been adequately addressed in actuarial literature. Although the insurance industry has done much to improve safety in many lines of insurance, safety is not necessarily viewed as having a good financial impact for the insurance industry, either as a whole or by large insurance companies. "You want safer cars. Safer cars mean lower insurance. Safer driving means lower insurance costs," said Warren Buffet making this counterintuitive point. Regulators require actuarial determination that rates are actuarially sound. Actuarial soundness means that the rate is just enough to provide for all costs in the aggregate. Therefore, safer driving should mean lower revenues for the insurance industry as a whole.

Large insurance companies project revenue by considering their own shares of insurance market segments. Therefore, a disruptive drop in revenue for the industry, whether due to safety or anything else, represents a risk to a large insurance company's revenue. Although safety reduces costs for insurance companies, the actuarial soundness requirement for rates implies no long lasting loss ratio improvements due to decreases in losses. Many large insurance companies had their roots as small insurance companies that were able address to an underserved and safer subset of the market. An example in the life insurance industry is The Phoenix Companies, which began as American Temperance Life Insurance in 1851 and insured only those who abstained in alcohol. An example in the property casualty insurance industry is GuideOne, which began in 1951 as Preferred Risk Mutual Insurance Company, with the idea that non-drinkers would be in fewer accidents than those that did drink. As in the past, the opportunity presents itself today for a startup or small insurer to focus on safer than average individuals. By using behavioral ratemaking, this company would also create incentives for insureds to become safer.

With respect to improved safety, the insurance industry currently seems to be primarily concerned about the impact of driverless cars. However, there is little evidence that driverless cars will be safer than human drivers in the near term. In addition, the focus on the safety of driverless cars removes energy from how safety can be improved through safer human driving behavior.

The difficulty of relearning safer driving behaviors

It is very difficult for an individual to relearn safe behavior. We cannot let that individual difficulty blind us to the safer possibilities for society as a whole. It may be easier to for some individuals to overcome opioid addiction than for others to correct some unsafe driving habits. Even if that is the case, society as a whole can improve safety. For example, cigarette smoking has decreased dramatically over the last fifty years. While it is very difficult for an individual to quit smoking, it was possible for smoking to be reduced in society overall. Similar driving specific examples of safety improvements that are difficult for the individual but possible for society as a whole are the increase in seat belt usage and the decrease in drunk driving over the past few decades.

Seat belt use is a safe driving behavior that reduces mortality and injury severity after an accident. Therefore, seat belt usage reduces insurance losses. It has been observed that seat beat use has greatly increased over thirty years. A widespread survey, taken in 19 cities in 1982, observed 11 percent seat belt use for drivers and front-seat passengers. In 2009, seat belt use averaged 88 percent in the 30 States with primary seat belt laws. Though not exactly apples-to-apples, this represents an eight-fold increase, showing that the vast majority of drivers were ready, willing and able to take on this safer driving behavior. While driving behavior can be very difficult for an individual to change, this example provides evidence that the driving public is able to adopt additional safe driving behaviors.

Despite the empirical evidence that human driving behavior can become safer as a whole, it may still be difficult to envision improved safety on a wide scale due to improving human driving behavior alone. We do know change for safety is possible, and although it may be unprofitable for large insurance companies that maintain the status quo, it is profitable for a new model of insurance company. Improved safety is good for society.

Insurance pricing would influence driving behavior

The question is not whether driving behavior can be improved, but whether insurance pricing can encourage safe behavior. In order for all the benefits of behavioral pricing to be realized, it must be true that some drivers can and will change their driving behaviors in response to their insurance price. In the past, common actuarial wisdom was that it was not possible for an insurance pricing system to encourage safe behavior as noted by Michael Walters, "Few drivers wear seat belts despite the life saving evidence, so the prospect of saving a few dollars of insurance surcharge certainly will not induce a modification of driving behavior." Coincidentally, not too long after that paper was written, most drivers began to consistently use seat belts. According to a Canadian survey, the majority of drivers believe doubling speeding fines would reduce speeding. Immediate insurance surcharges that are directly attributable to speeding are very similar financially to fines. This supports that increasing insurance costs for speeding could reduce speeding.

The advent of telematics has enabled insurance pricing to induce the driving public to drive more safely. In 1981, there was no way to reliably determine whether drivers used seat belts or to monitor other driving behaviors, such as speed. This lack of reliable determination virtually eliminated the possibility of insurers reflecting driving behavior in pricing. Telematics data is now available so that the insurance company can determine driving behavior with great accuracy. Because of the availability of reliably correct telematics data, the behavioral price differences can be substantial. Behavioral pricing combined with the availability of telematics data can now provide the driver with minute by minute updates on insurance pricing as compared with the annual updates of the past. By providing continuous behavioral feedback impacting premium, drivers are enabled to consider premium when choosing a driving behavior.

In order for insurance pricing to influence driving behavior, the pricing difference needs to be significant to the insured. While driving slower saves fuel costs, the resulting savings do not seem to be great enough to significantly influence driving speeds.

In order to show that insurance pricing can encourage safe behavior, it is noted that a large part of driving risk is during the daily commute to work. For many people, there are many commuting cost options, including fuel efficiency, parking and use of public transportation. A daily difference in insurance cost would likely impact commuting cost benefit analysis and influence driving behavior to recognize a reduced insurance cost each day.

Review of speed and other telematics attributes

"Newtonian relationships between the fourth power of small increases or reductions in speed and large increases or reductions in deaths state the case for speed control." The best choice of driving attribute to be used for behavioral ratemaking is speed. As opposed to other attributes, such as cornering, braking and acceleration, speed has several advantages including that it relates to the hazard. According to Walters, attributes "should reasonably relate to the potential for, or hazard of, loss." Compared to the other attributes: speed is more commonly a direct cause of accidents and speed is likely correlated with other aggressive and risky driving behaviors such as assuring safe following distance. A slower driver would be less likely to be tempted into a risky maneuver to pass an even slower moving vehicle. Regardless of the cause of the accident, virtually every accident would have a reduced cost if the initial speed were reduced and a better (slower) speed score would always be associated with reduced hazard. Similarly, a worse (faster) speed score would almost always be associated with increased hazard. A better cornering score is not always correlated with decreased risk as crossing a yellow line at an intersection could improve the score but increase accident potential.

Some attributes for which it may seem reasonable to adjust the rate based on historical behaviors would not be feasible for behavioral ratemaking. While "hard braking" can be used as part of an overall analysis of safe driving, it does not directly relate to cost of risk. If a driver frequently brakes hard, the driver may be exhibiting unsafe behaviors prior to the hard-braking. While a hard-braking surcharge may reduce some unsafe behaviors, the hard braking attribute does not work for behavioral ratemaking. The hard braking itself is used by the driver for the purpose of reducing hazard and it doesn't make sense to charge the driver for the hard braking in the seconds before an accident that reduced the cost, or discourage the driver from hard braking to avoid an accident. Compared with good speeding scores, good braking scores are not as clearly associated with safe driving and can be associated increased accident probability. For example, rolling through rather than completely stopping at a stop sign could improve braking score while increasing the chance of an accident. Conversely, a bad braking score could be the result of successfully avoiding an accident or making a complete stop for a pedestrian in a crosswalk. Using a hard braking attribute could increase risk if the braking surcharge discourages drivers from hard braking when necessary to avoid an accident. The braking attribute just does not make intuitive sense when used on a real time telematics data since hard braking may be the result of trying to avoid or reduce the cost of an accident. Also it wouldn't make sense to charge a driver for braking hard one second before an accident. What would make sense is charging the driver for going too fast before the hard braking that led to the need for the hard braking evasive action in the first place.

Speed meets another criteria better than other attributes such as braking or cornering: it is easier to measure. The attribute "should be susceptible to measurement by actual experience data." Drivers already understand that speed relates to risk and are trained to objectively measure speed. The other attributes would require additional training to show drivers how behavior impacts their score.

Other groups concerned with safety, such as law enforcement and the medical community, have determined that slower speeds are safer. There has been no such determination for cornering or braking. The public already understands that speeding causes insurance losses. According to a Canadian study, about ninety percent of drivers believe driving over the speed limit increases the chance of accidents, injuries and getting killed. While there are certainly other behavioral factors which may impact accident risk, the insurance industry should focus on speed as the first attribute to use with behavioral ratemaking.

Data shows that speed increases costs of risk

Since the beginning of the automotive age, it has been known that increasing speed increases the cost of driving risks. According to NHTSA, "For more than two decades, speeding has been involved in approximately one-third of all motor vehicle fatalities." According to the NHTSA and NTSB, speeding causes as many deaths as drunk driving. Considering this statistic only includes accidents where speed was actually recorded as the cause, speeding fatalities may be understated. Other accidents where the initial speed exceeded the speed limit are not included. There is no way to determine how many fatalities in these accidents could have been avoided had the initial speed not been excessive.

Slower speeds reduce accident probability

"At lower speeds, drivers have a wider field of vision and are more likely to notice other road-users." Before an accident occurs, something unexpected must happen within the minimum distance (this could be defined as the distance travelled in two seconds, for example) needed by the driver to make normal driving adjustments in speed and direction. When this happens, the driver will undertake evasive action to reduce the probability of the accident and potential severity of the accident. The smaller this distance is, the less likely it is for an unexpected event to occur within that distance. If the initial speed is reduced, the minimum distance is proportionally smaller so it is less likely for an event requiring evasive action to occur. Therefore, a decrease in initial speed decreases accident frequency at least proportionally.

According to Nilsson, speed has a greater than proportional impact on accident frequency.

$$A_2 = A_1\left(\frac{v_2}{v_1}\right)^2$$

Or, the number of injury accidents after the change in speed (A2) equals the number of accidents before the change (A1) multiplied by the new average speed (v2) divided by the former average speed (v1), raised to the square power.

Slower speeds reduce accident severity

Since kinetic energy is proportional to the square of velocity, it can be hypothesized that the cost of damage caused by an accident is proportional to the square of speed at impact. This hypothesis is borne out by studies. While ethical experimental confirmation of how bodily injury costs relate to speed of impact is not possible, it can also be hypothesized that bodily injury costs are also proportional to the square of the speed.

How reduced speed impacts expected cost of accidents

Since total costs are frequency times severity, an X% reduction in speed may cause approximately 2X% to 3X% reduction in accident costs. This calculation does not consider how other safe driving behaviors are likely correlated with slower driving, so more analysis is needed to conclude this relationship. While there is a range of driving speeds, it is not uncommon for the average speed on a highway segment to be 20% greater than the speed limit. In these cases, for example, a 20% reduction in speed could cause a 36% decrease in probability of an accident and a 36% reduction in severity yielding a 59% reduction in costs.

Driving algorithms: programming humans versus cars

Programmers will need assistance from the actuarial profession to consider safety within the automated driving algorithm. It would be a mistake to assume that automated driving algorithms will reduce losses so significantly that actuarial pricing would not be needed. As with any new insurance product, actuaries need to understand it to price and underwrite the insurance accurately. Accurate insurance pricing will encourage safety in the design. Perhaps actuarial pricing programs can be written to apply self-driving algorithms in model driving situations to assess how well adapted it is to avoid and reduce severity of accidents.

"In the future, the actuary will be in the car." With respect to driverless cars, programmers strive to create driving algorithms that are at least as safe as a human driver. Automated algorithms will certainly reduce some types of accidents such as distracted driving. As long as the driverless car is at least as safe as a human driver, implementation will improve safety. Currently, incentive and responsibility to significantly improve safety beyond human driving is lacking. There may be minimum requirements to obtain and possess an "automated" driving license, but the best incentive for programmers to produce safer algorithms would be to reduce insurance costs through behavioral ratemaking. With the incentive of saving on the costs of insurance risk it would be possible to experiment with possible behaviors to improve telematics attributes and safety.

Human drivers, too, are not primarily concerned with safety when deciding how they wish to drive. As with any automation, programmers should be expected to program automated vehicles to drive the way a human driver would drive. This is similar to an individual having the responsibility to decide how to drive. In either case, it is the responsibility of the insurance industry to determine how much to charge for insurance using the chosen driving behavior as an input. The difference with an automated driving algorithm is that there are explicit decisions with respect to risk and safety.

There are clearly cases where humans are better than automation. Humans appear to be better at determining where in the lane to drive and better at driving in bad weather. Futurists believe that the insurance rating formula should be determinable based on the algorithm and placed within the program to determine the insurance charges based on the algorithm and other factors such as time, location and mileage of operation. In order to encourage safer and less risky driving algorithms, the insurance rating formula should consider driving behaviors of the algorithm. The programmers can then consider adjustments to the driving algorithm in consideration of the insurance costs.

Individual human drivers also have driving algorithms. Their driving behaviors could theoretically be reduced to a set of procedures to apply in all situations. Unlike automated driving algorithms, human driving algorithms are unknowable. While human driving algorithms may be able to be closely approximated based on observed driving behaviors in a great number (probably billions of miles would be needed) of situations, they cannot be used directly to determine insurance costs. Due to this complexity, the actuarial field may be a long way off from being able to create an insurance pricing formula based on an automated driving algorithm, but behavioral ratemaking can be used right away to be the bridge to getting to that point. In addition to using behavioral ratemaking for human drivers, it can also be used for automated vehicles as they become more mainstream. Either way, behavioral ratemaking differentiates among various driving behaviors and safety characteristics. Actuarial expertise is needed now to connect driving behaviors with risk and in even more so in the future.

While many seem to have an initial expectation that automated driving may reduce insurance losses to near zero, automated driving will have losses for the foreseeable future. It may be many decades before fully automated vehicles are on the road. In the meantime, there needs to be responsibility for understanding the risk consequences. Actuaries are the best profession to ensure that the automated driving algorithms of the future adequately consider insurance risks.

Influence on traffic safety and law enforcement

Since the beginning of the automotive age, society has created rules for the purpose of safety to reduce the risks of driving. These rules include obeying traffic signals, speed limits, stop signs, and lane markings. It is common knowledge that following driving rules reduces driving hazards. Traditionally, traffic enforcement has been an important means of improving traffic safety. Many studies have provided evidence of connections between the level of police enforcement and both driving behavior and the number of traffic accidents. Since insurance companies are largely impacted by these financial costs, history shows insurers as being strong advocates of safe driving. Historically, insurance companies had no way to determine how well drivers mind driving rules. Other than consideration of traffic citations, there was no way to factor rule-following into the rating process. Most breaking of driving rules does not result in a traffic citation. Reliable determination of rule breaking is now possible with telematics data.

The general public has all seen drivers use devices to elude traffic cops such as radar detectors. In our society, many view traffic cops as bad and that speeding should be accepted and tolerated. An important role of government is to enable safe travel. The government sets driving rules such as speed limits and should enforce those rules. It is possible that behavioral ratemaking will be better at encouraging safe driving than traditional public services messages and law enforcement. Traffic regulators may need to work with actuaries and other experts in insurance risk to determine the best way to moderate insurance risk.

There are hundreds of thousands of traffic officers and other individuals dedicated to improving safety through speed limit enforcement in this country. There are hundreds of millions of drivers who seem to be more concerned about evading law enforcement than safety. There are only a few thousand actuaries who can determine how driving behaviors should be considered when addressing actuarial fairness to regulators.

How will behavioral ratemaking enable companies to improve fleet safety?

Businesses that use highways have exposure to driving risks that need to be carefully managed. OSHA has published guidelines to help employers manage these risks. According to the Royal Society for the Prevention of Accidents, "One of the most significant risks . . . is driving or riding at inappropriate speeds on work-related journeys". Because driving behavior is difficult to change for any driver, attempting to manage another driver's behavior is difficult and could be offensive. We may have no choice but to trust the driver to be safe. As an example, plan to politely ask your next cab driver to drive within the speed limit. While this would be a perfectly reasonable request to manage our own risk of bodily harm, you may find it to be a difficult discussion. Commercial vehicles taking various levels of risk can be frequently observed. This risk directly translates to financial risk of the drivers' employers. In the past, many employers had limited ability to address this risk until the driver was involved in an accident and then, the only recourse may have been termination of the driver. Drivers spent their work day out of sight of their employer and, for example, there may be a temptation to attend to non-work related matters and to catch up on their deliveries by speeding.

Telematics is now increasing the ability of fleets to manage driving behavior. As there are many business reasons other than insurance cost (better service to customers, risk to reputation, etc.) to reduce driving hazards, companies can use telematics to better manage driving risk. In addition, large self-insured companies can reduce insurance costs by making sure their drivers are driving safely.

For companies too small to self-insure, monetization of driving behavior improvement is extremely uncertain in timing and amount. Behavioral ratemaking can create immediate savings for smaller fleet managers if they encourage safe driving.

There is also the possibility that fleets that are successful in improving safety can bring other companies drivers or even individual drivers into their program to pass on insurance savings.

Possible methods to instantaneously adjust rates

Throughout this paper we talk about instantaneously adjusting insurance rates. However, it is not entirely intuitive how this might take place since it has never been attempted with respect to US auto insurance which is highly regulated. There may be current laws or regulations in some states that would prohibit behavioral ratemaking, requiring changes to enable it. In other states, the introduction of a behavioral ratemaking might stimulate new laws and regulations to better control and regulate it. Similar with other uses of telematics data, may be privacy concerns. This concern is reduced for behavioral ratemaking because many states already allow the use of telematics data for insurance pricing. Depending mainly on acceptability to regulators, and how to guarantee payment of surcharges, some possibilities include:

- Include surcharges as part of a normal rate filing. As a somewhat simplistic example, certain policies could have a $0.10 surcharge for every mile driven between 10 and 14 mph greater than the speed limit.
- For assessable mutual insurance policies, include surcharges as assessments.
- Create a relationship between the insured and a non-insurance company risk bearing entity that could change surcharges and take some financial responsibility for encourage safe driving behaviors. This concept would not be dissimilar to professional employer organizations taking some of the risk of their clients' workers compensation and employee health insurance benefits.

Conclusion

Speed has long been known to be one of the very most important driving safety factors and may be the best behavioral ratemaking risk factor. An insurance scheme with increased rewards for driving slower and more safely, that encourages implementation of safer driving practices, would be both beneficial and disruptive.

In the last few years, InsurTech has spawned many ideas to transform insurance. Although there are many InsurTech initiatives to transform the auto insurance industry, most do not appear to be disruptive any time soon. This new approach to ratemaking, Behavioral ratemaking, is different and would be expected to cause disruption in the near term. The disruptions would be to not only the auto insurance industry, but the impact would also effect traffic enforcement policies, road infrastructure and car programming. Behavioral ratemaking will encourage safer driving and ultimately lead to safer roads.

Behavioral ratemaking is intended to put the driving population on the path to continuous and conscious relearning of safer driving skills. Complete transformation could be a long and difficult process but significant benefits would be expected almost immediately. Regardless of whether transformation of driving occurs, behavioral ratemaking is an opportunity to create a successful insurance enterprise built upon safety conscious drivers. Behavioral ratemaking will also assist fleet management.

To move ahead with implementation, the industry needs to understand what is needed for an InsurTech idea to transform ratemaking and how safety can be aligned with insurance company financial goals. When insureds are encouraged to behave more safely, with improved behavior confirmed through telematics data, this transformation will benefit society. Examples show that insurance pricing can impact behavior. Actuarial ratemaking needs to be considered as part of automated driving algorithm creation processes.

In order to implement behavioral ratemaking, a new method to modify insurance premium instantaneously for driving behaviors must receive regulatory acceptance. Many insurance professionals witness the gory details of death and serious injury every day. Although their witness may only be through insurance claim files, it is otherwise similar to first responders and medical personnel. Spirits speak from the grave to focus on safety to give meaning to unnecessary deaths.

Source Citations and Footnotes:

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Cybersecurity Risk is Everywhere and There are Plenty of Options to Think About

By Dave Gordon, CISA, CIA, CFE (Fraud), CDFE
The INS Companies

What are the correct approach and methods for a sound cybersecurity assessment?

"Cybersecurity" has existed for the last thirty years and while it has gained a lot of attention over the last decade, the attention has dramatically increased over the last five years. However, there are still a lot of questions as to how a company's cybersecurity process should be assessed, and those questions will continue to change and grow as the information security risks multiply exponentially with the increase of more devices connecting to the internet.

In order to begin a cybersecurity assessment, examiners need to map out what to measure against before beginning any work. The maturity levels of cybersecurity vary immensely. While most companies will tell examiners that they take cybersecurity seriously, the reality is that some companies take the "bare minimum" approach; others take the "what I don't know won't hurt me" approach; and others attempt a full commitment to protect their IT environment against cybersecurity threats.

In most cases, an examiner can come up with a preliminary expectation on how to complete a cybersecurity assessment by interviewing management and asking management about their high-level approach to cybersecurity. To summarize the cybersecurity maturity levels mentioned above, some companies will tell examiners that they have looked into cybersecurity and they are assessing what steps they need to take (the "bare minimum" approach). Other companies will tell examiners that they have taken steps to reduce cybersecurity. However, when asked what their assessments (either self-assessed or from external consultants) have revealed, the response may be something along the lines of, "we haven't performed any assessments, but *we feel confident everything is fine*" (the "what I don't know, won't hurt me" approach). Finally, other companies take a comprehensive approach (full commitment approach) to cybersecurity. If such is indeed the case, they will for the most part, gladly let anyone know their cybersecurity accomplishments.

Subsequent to the interview with management, the examiner can begin to consider the next steps and request standard documents (policies and procedures for data security, incident response and vendor management as well as other cyber-related documentation) that examiners will need to consider to adequately proceed with cybersecurity assessments.

Over the last few years, as the needs and requirements for cybersecurity assessments have been established and revised, the National Association of Insurance Commissioners (NAIC) has taken a proactive approach to integrating best cybersecurity practices within the Exhibit C recommended steps for completing a review of IT general controls.

Multiple sections of the current Exhibit C work program specifically mention risk and control steps associated with cybersecurity (such as incident management, vendor management, data loss prevention and other steps). However, the question becomes "*Do the risk assessments and associated controls of an examined company reach far enough to adequately assess whether the company's underlying cybersecurity risks are properly mitigated?*" This question becomes even harder to answer when the examiner realizes that cybersecurity risks are a moving target. One needs only to look back at what was considered "best practices" in cybersecurity five years ago and compare that to the current state of cybersecurity "best practices." The bar has been raised and will continue to rise as more and more devices are added to the "Internet of Things" ("IOT"). The IOT continually creates new risks every day because every new device connected to the IOT creates a whole new myriad of data threats related to data confidentiality and data privacy. These devices (such as refrigerators, light switches, car traffic monitoring and home alarms) are currently being used to draw information about users' health or behavioral patterns and the "threat" in keeping this data private and/or confidential will only continue to grow. (But that's a topic in itself for another day.)

When assessing cybersecurity risks, examiners need to consider the ever-changing vulnerabilities that are constantly being identified in inherent software, systems and hardware, not to mention the risks that arise due to lack of diligence, and just regular misjudgments or errors that occur when people are attempting to do the best they can within the realm of cybersecurity and fail to execute as intended.

So, after performing a high-level interview and looking at some initial documentation, where does an examiner begin with a cybersecurity assessment? If an examiner knows that a company has taken a "bare minimum" approach because they have not accomplished much to date, the assessment will most likely be close to completed other than writing up conclusions, observations and recommendations. As part of the NAIC IT general control (ITGC) audit program, there are specific steps applicable to cybersecurity that should help the examiner draw initial conclusions for cybersecurity. The NAIC Financial Condition Examiners Handbook (FCEH) lists specific steps to address while considering cybersecurity processes. These steps include:

- assessing security events, incidents, and breaches;
- integration of cybersecurity risk into the overall enterprise risk management process;
- the company's information security program;
- employee training;
- security awareness;
- vulnerability management; and,
- company acquisitions (where appropriate)

By starting with the preceding NAIC recommended cybersecurity steps, examiners have a strong basis from which to draw to make their conclusions. If there are no controls for the processes listed above, then conclusions and associated recommendations are easily created by recommending the company implement such policies and procedures. If only a portion of these items exist, then it is up to the examiner's professional judgment as to which items should be further assessed (tested).

All of the items listed above for the basic cybersecurity processes will be covered to some extent within the standard NAIC ITPQ and associated audit program. Therefore, preliminary answers should be available from the most recent Exhibit C work completed. Depending on the risks uncovered during this first phase, examiners are generally able to determine if performing an in-depth cybersecurity assessment is viable, and, if is determined to be viable, what areas should be evaluated in depth during the testing phase.

The Exhibit C assessment is the best place to begin because it is highly unlikely (although possible) that a company would have strong cybersecurity controls if they do not have adequate IT general controls in place. As a metaphor to this relationship, it is difficult for a toddler to run before they can walk and it is even more difficult for a baby to walk if they cannot crawl yet. Along those lines, if a company cannot execute an adequate level of general controls over their information technology environment (the ITGC concludes in an "ineffective" assessment), it is highly unlikely that cybersecurity processes are adequate.

There are also details to look for in each of the cybersecurity "steps" and each of these items should be reviewed or tested (if they exist) to determine if the company truly understands and executes adequate cybersecurity steps or whether they're just going through the motions.

- For assessing security events, incidents, and breaches, the following processes should be in place
    - Security events, incidents and breaches must follow the common processes (either indirectly or directly) that include the identification of cybersecurity risks, the protection of data assets, the adequate detection of any cybersecurity risks (whether automated or manual detection) and the response to the event and the recovery from the event
    - Adequate policies and procedures for security events, incidents and breaches
    - Identification steps and processes to determine when events, incidents and breaches occur
    - The presence of adequate tools (monitoring and logging tools for systems and networks to determine) when events have occurred
    - Criteria for the classification of each category

- Measures to communicate events, incidents and breaches both internally (where prudent) and externally (where required)
- Events, incidents, and breaches should be recorded and monitored for solutions or mitigations for comparison to future events
- Triage processes for mitigating any relevant events

- Integration of cybersecurity risk into the overall enterprise risk management process
    - This step should not only include the listing of cybersecurity risk in the overall enterprise risk management process, but also include specific steps to have cybersecurity risks adequately assessed from both an inherent and residual risk perspective and then have those risks prioritized within the overall risk management process
- The company's information security program (ISP) should include the following:
    - (*Note: The NAIC recommends this step be performed only for states that have enacted Insurance Data Security Law (#668). However, this step is "good practice" and should be carried out anyway in this author's opinion.)*
    - Designate one or more persons to be responsible for the company's information security program
    - Assess whether the ISP adequately considers and mitigates cybersecurity requests
    - Identify the IT universe (devices that contain or process data)
    - Restrict physical access to adequate levels
    - Ensure adequate levels of encryption on devices and transmissions
    - Evaluate software for adequate levels of security
    - Modify information systems to accommodate ISP processes
    - Consider using multi-factor authorization for accessing nonpublic data access
    - Ensure data is adequately protected against destruction or loss
    - Ensure data is adequately disposed of securely when appropriate
    - *Note, there are some additional steps recommended, but these steps are handled elsewhere*

- Security awareness
    - Make users aware of potential threats (such as phishing or other type of manipulations to gain unauthorized access to data by people outside the organization) through periodic training
- Vulnerability management
    - Recording and status of current vulnerabilities and patching methods to reduce overall vulnerability risk
- Company acquisitions (where appropriate)
    - Consider the cybersecurity threats that occur during the acquisition phase
    - Consider the cybersecurity threats and controls implemented by the "new" company(ies)

After considering all the items above and whether the company has met the standards above, the examiner may want to consider whether further testing should occur, which is usually for larger companies that should have more in-depth cybersecurity processes in place. Measuring against the standards above can always be taken to a more in-depth level to counter the risk in place with larger companies by following the National Institute of Standards and Technology (NIST) standards discussed below or there may be requirements to be more specific with respect to various state standards.

For more in-depth cybersecurity assessments, NIST has created a cybersecurity framework (CSF) that allows for a deeper assessment of cybersecurity standards. The CSF document also integrates the moderate-baseline controls contained in the NIST Special Publication (SP) 800-53 revision 4, *Security and Privacy Controls for Federal Information Systems and Organizations* along with similarly relevant controls from other frameworks and best practice standards as well.

The NIST CSF assessment steps utilize specific requirements as they provide for a more robust and direct assessment of the five primary functions of proper cybersecurity processes (identify, protect, detect, respond and recover). The CSF assessment steps provide for a more specific focus on not only the five primary functions, but processes that support those primary functions, such as Asset Management, Governance, Risk Management Strategy, Anomalies/Events, Detection Processes, Communications, Recovery Planning along with other control-oriented process steps.

Over the last few years, at least forty-five states and Puerto Rico have introduced or considered introducing close to three-hundred bills or resolutions that deal significantly with cybersecurity and data privacy. Some of the key areas of legislative activity include:

- Cybersecurity insurance or standards for insurance data and information security
- Improving government security practices
- Addressing the security of connected devices
- Creating cybersecurity commissions, task forces or studies

As the requirements for compliance with these regulatory requirements grow and/or transform over time, regulators must adjust to provide specific regulatory assessments and guidance on how to properly scope and deliver adequate assessments.

While cybersecurity related risks are currently ever-present and throughout all insurers, approaches to properly assess cybersecurity may differ depending on the circumstances. It is with this consideration and by following the items above, the examiner should be able to adequately summarize the steps necessary to complete an adequate cybersecurity assessment.

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Market Briefing Q4 2019 Asset Valuations in a Volatile and Uncertain Market

By Edward Toy
Risk & Regulatory Consulting, LLC

Introduction

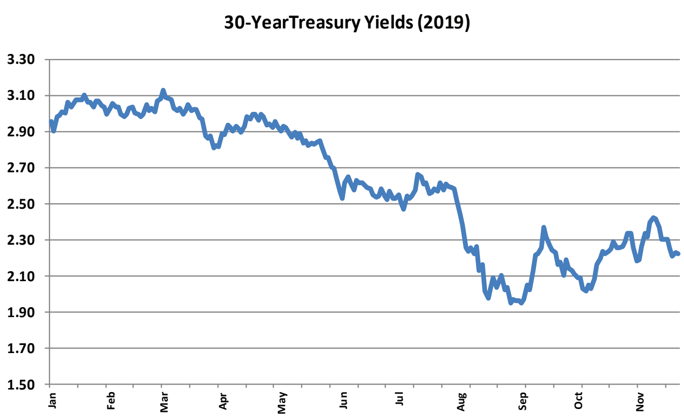
As the various investment markets head towards the end of the calendar year, one of the inevitable questions for US insurers is, and has always been, what will be appropriate valuations for their invested assets. While the majority of invested assets for US insurers are reported at amortized cost (or some version of that), some are at either fair value or the lower of cost or fair value. Also, even for those assets reported at amortized cost, fair value assessments are still an important aspect of regulatory reporting, as a significantly negative comparison may be considered an indication of impairment. Reminders of market volatility that was experienced in the last quarter of 2018 also point to at least the potential for significant changes in value.

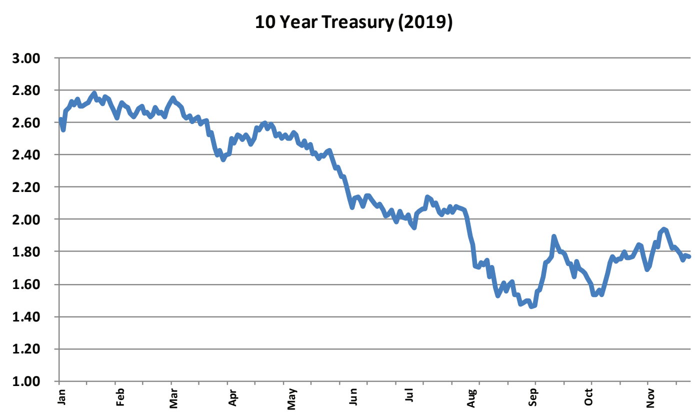
U.S. Insurer Long Term Invested Assets as Percent of Total

	LIFE		P&C		Health		TOTAL	
LONG TERM INVESTMENTS	2017Y	2018Y	2017Y	2018Y	2017Y	2018Y	2017Y	2018Y
Corporate Bonds	47.8	47.3	21.1	22.0	27.9	28.3	39.5	39.4
Loans		1.0		0.7		1.0		0.9
Government Bonds (incl Municipals)	12.0	10.1	27.1	25.8	26.3	23.9	16.8	15.1
Agency CMBS	1.1	1.2	1.0	1.3	0.5	0.7	1.0	1.2
Agency RMBS	4.8	4.6	5.1	5.4	9.2	9.8	5.0	5.0
Agency ABS	0.5	0.4	0.5	0.4	0.2	0.2	0.5	0.4
Non-Agency CMBS	3.3	3.4	2.1	2.3	2.1	2.6	2.9	3.1
Non-Agency RMBS	2.1	2.0	1.1	1.2	0.6	0.7	1.8	1.7
Non-Agency ABS	6.3	7.0	3.1	3.8	4.3	5.8	5.3	6.0
Hybrids	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.3
Bond ETFs	0.1	0.1	0.2	0.1	0.9	0.8	0.1	0.1
Subtotal Bonds	78.2	77.5	61.4	63.3	72.2	73.9	73.2	73.3
Preferred Stock	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Common Stock	0.8	0.7	19.0	17.9	5.3	4.4	6.2	5.8
Funds reported as Common Stock	0.2	0.2	1.5	1.3	7.5	6.9	0.8	0.7
Subtotal Equity	1.3	1.2	20.8	19.4	13.1	11.6	7.2	6.8
Commercial Mortgage Loans	11.4	12.2	1.0	1.1	0.1	0.1	8.0	8.6
Mezzanine Loans	0.3	0.3	0.0	0.0	-	0.0	0.2	0.2
Residential Mortgage Loans and Other	1.0	1.2	0.1	0.1	0.0	0.0	0.7	0.8
Problem Mortgages	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Non-Insurer Occupied Real Estate	0.5	0.4	0.2	0.3	0.2	0.1	0.4	0.3
Subtotal Real Estate Related	13.2	14.0	1.3	1.5	0.2	0.2	9.4	10.0
Other Long Term Assets	2.5	2.7	3.1	3.1	3.5	3.5	2.7	2.8
Subtotal Unaffiliated Long Term	95.1	95.4	86.6	87.4	89.0	89.2	92.5	92.9
Affiliated Investments (incl Insurer Occupied RE)	4.9	4.6	13.4	12.6	11.0	10.8	7.5	7.1
Total - Long Term Investments	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

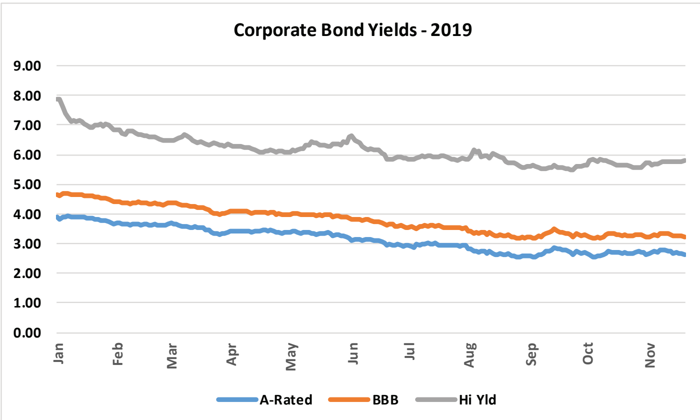
How are changes in market values reflected in US insurers' invested assets? Bonds which represent the largest percentage exposure are largely held at amortized cost. The exceptions are for bonds with an NAIC 6 Designation for Life companies and any bonds below an NAIC 2 Designation for Property & Casualty and Health companies. For these, the requirement is lower of cost or fair value. Fair values of all bonds though are reported so that companies and regulators can make an assessment if an Other Than Temporary Impairment (OTTI) is justified. Insurers can be faced with the need to recognize an OTTI especially if they cannot represent that they are able to hold an investment to maturity. Common stock investments are reported at fair value including mutual funds that are reported as common stock. The exception to the mutual fund valuation requirement is with specific Bond Exchange-Traded

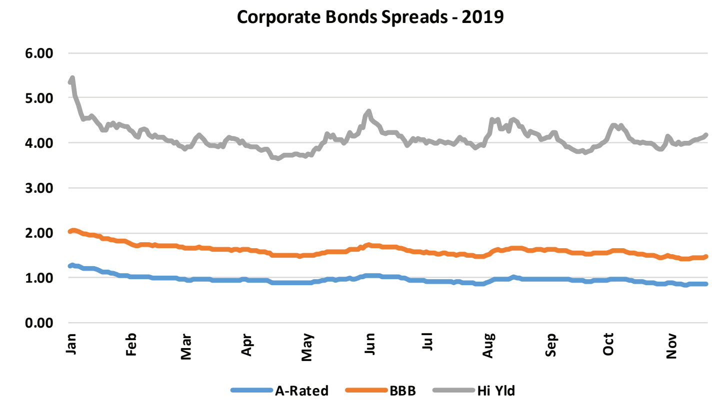
Funds (ETFs) that are listed as being eligible for treatment as bonds. These must meet specific guidelines promulgated by the NAIC's Valuation of Securities Task Force. While those are treated as bonds and can be reported based on a defined "systematic value", US insurers can also report at Net Asset Value. Some analysis done has shown that most insurers have chosen to report values at Net Asset Value. In either case, the fair value must also be reported. Swings in equity markets would also be expected to impact the value of many investments reported on Schedule BA. Private equity funds are an example of where markets should be expected to impact the values, and in periods of volatility, may have a more substantial effect. The values reported by insurers are generally provided by the fund managers. The weakness in the fourth quarter of 2018 should have been reflected in year-end 2018 values. However, in some cases, the recovery in markets in the first quarter of 2019 may also have led to some upward adjustments for the year-end values.



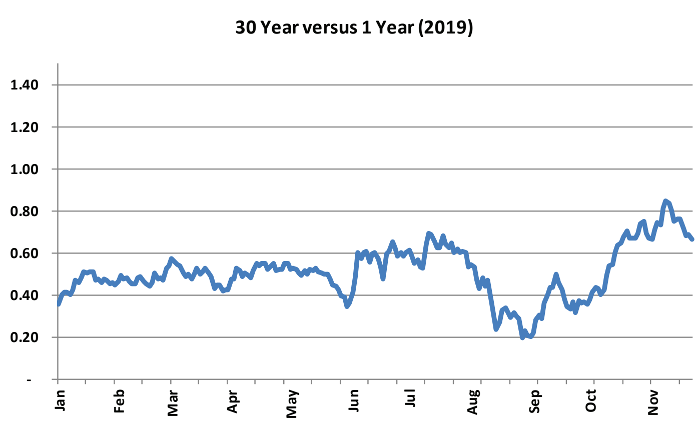


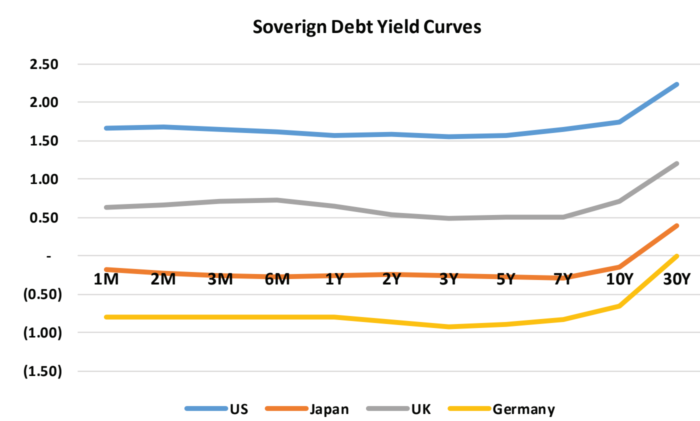
Since the bulk of US insurers investments are in bonds, or other longer dated fixed income investments, what has happened to longer term interest rates between year-end 2018 and year-end 2019 would impact those fair values. Longer term interest rates, as reflected by the 30-year and 10-year Treasury yields, have declined. The 30-year Treasury yield began the year at 2.95%, and was 2.22% as of November 22nd, a decline of 73 basis points. With the longer duration, the decline in yield should translate into an increase on price of about 12 points. The 10-year Treasury yield, a somewhat more common benchmark maturity, declined from 2.62% to 1.77%, or 85 basis points. Given the shorter duration, one would expect an increase in price of about 7 points.



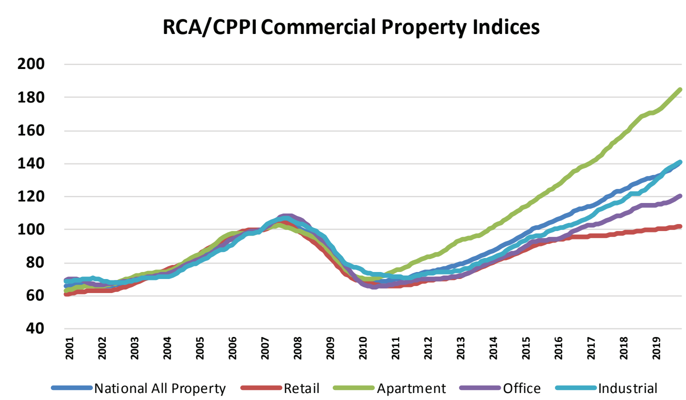


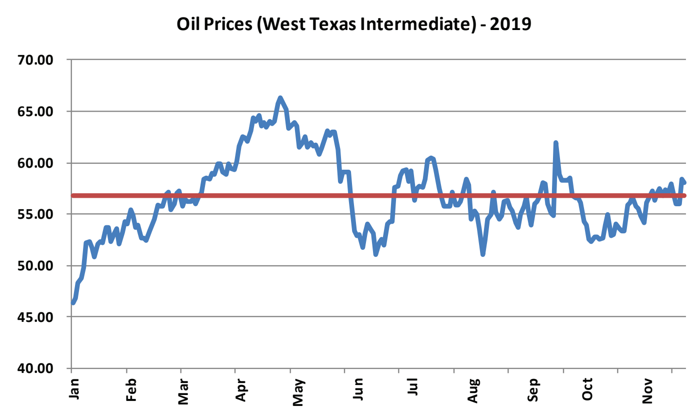
Bond prices are impacted not just by changes in Treasury yields, but also credit spreads. For 2019, these also declined from the beginning of the year through November 22nd. The bulk of US insurer bond investments are in single-A and triple-B quality markets, with a not insignificant exposure to below investment grade bonds. Generic market yields and spreads for single-A bonds declined 125 basis points and 39 basis points, respectively. For triple-B quality market, those same measures were declines of 145 basis points and 57 basis points. High yield levels are somewhat more difficult to pinpoint since the markets are less liquid and actual trading is more "by appointment". However, at least indications are below investment grade bond yields decreased by over 200 basis points and spreads by 110 basis points. These levels are all for Corporate Bonds. The market for Structured Securities are also more difficult to pinpoint. There have been significant anecdotal reports that yields and spreads on the lower tranches of Collateralized Loan Obligations (CLOs) have significantly increased in recent weeks, as there have been some concerns about increasing defaults in the near future. The result is a significant decline in prices. This is more market perception driven, as opposed to actual realized defaults, and yet the market impact is the same.





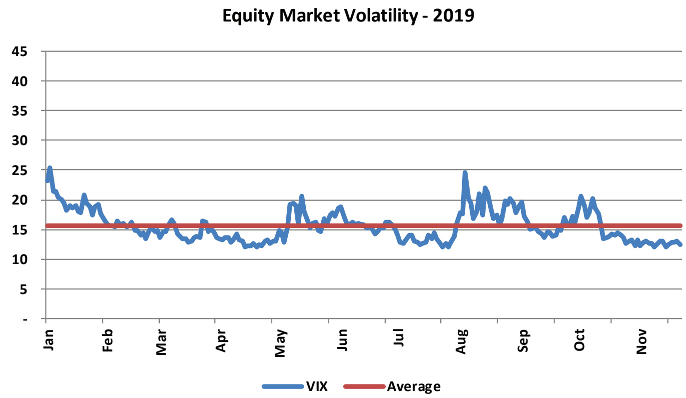
Besides the absolute levels of interest rates and credit spreads, the fair values of different investments can also be impacted by expectations for near term changes in interest rates. This is partially reflected in the shape of the yield curve. The Treasury yield curve flattened during 2018 and was negatively sloped for significant segments for a period of time. This flattening was driven by strong expectations for a weakening economy and the potential for a recession. While those concerns have softened somewhat in recent months, they have not completely abated. As such the yield curve is generally not negatively sloped, but is still flat. Sovereign debt yields in a few other countries, most notably Japan and Germany, remain actually negative for significant maturities. Flat yield curves and negative rates are also a material issue for the Financial sector. Different kinds of financial institutions, which include insurance companies, are seen as being particularly vulnerable to market volatility in these market environments.

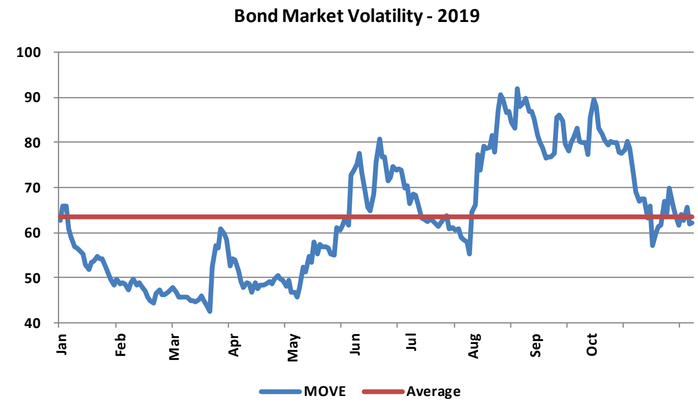




Values for Commercial Real Estate, and then also how that may reflect on Commercial Mortgage Loans, are much more difficult to pinpoint. The asset class remains more idiosyncratic, driven by property type, geographic location and specifics about the property itself. However, in terms of general national indices, values have continued to improve, with Apartments/Multifamily leading and Retail continuing to lag. Based on the last twelve months of available data, the national index was up 7.5%, while Apartment/Multifamily index value increased 8.7% and Retail increased 2.1%.

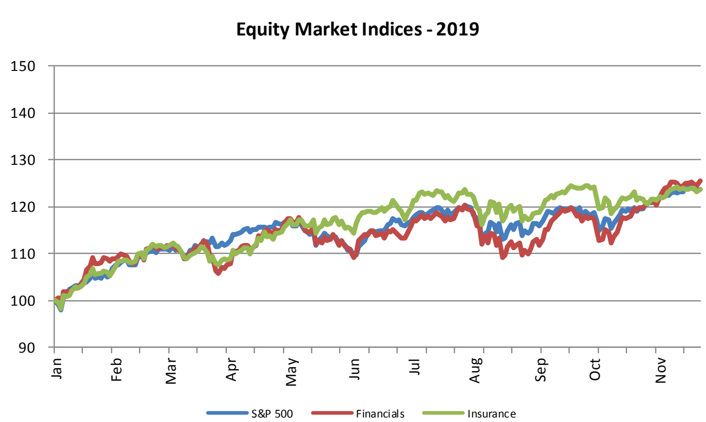
A commonly monitored economic benchmark is the level of oil prices. While these are often influenced by global political issues and other dynamics, they are also seen over time as a good measure of economic activity. Oil prices, while still substantially lower than their high points in 2014, also improved during 2019. This improvement has for the time being ameliorated some of the concerns about the Energy sector, but many of the companies remain weakened and subject to potential credit issues as debt maturities loom. The year began with the price of West Texas Intermediate oil at $46 per barrel. Currently the benchmark is at $58 per barrel. This is compared with a high of $106 in 2014 and a low of $26 in early 2016.

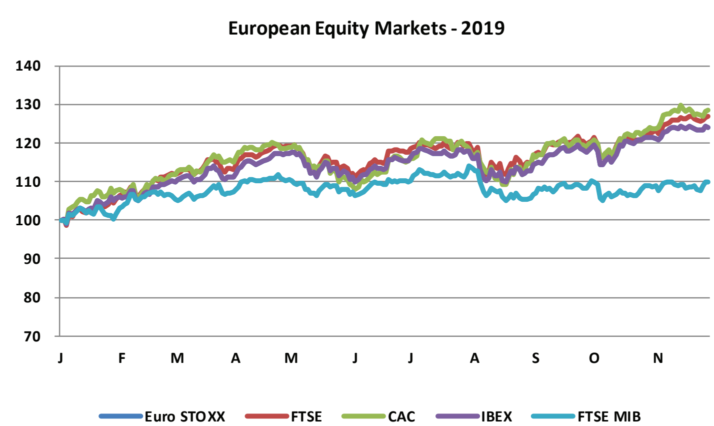




Market volatility can also have a significant impact on valuations, especially on derivatives or investments that have derivative components. The latter would include investments like convertible bonds or certain kinds of Structured Notes, whose yields are based on non-interest rate, market-based factors. Hedge funds, which attempt to take advantage of market inefficiencies and volatility through the use of leverage and derivatives, would also be materially impacted by changes in volatility. After an extended period of underperformance, hedge funds have realized a period of recovery in the past year. The hedge fund industry tends to do better in periods of market volatility, but individual fund performance depends on the specific strategy employed.

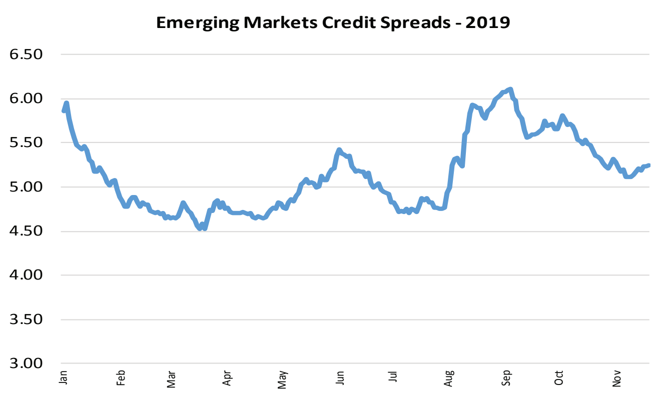
For derivatives, market volatility is one of the major inputs into valuation, along with interest rates and time to maturity. In addition to having a significant impact on the fair values of the derivative positions, shifts in market volatility should also be expected to impact the effectiveness of hedging programs. One lesser known aspect of the financial crisis was a large divergence between derivatives pricing and the pricing for the underlying cash instruments of those derivatives. Increased volatility will impact the value of all derivatives, and to the extent that hedging strategies are not deemed to be effective for accounting purposes, the shifting market values of derivatives will need to be recognized. In addition, increases in costs of different derivatives may impact the economics of hedging strategies that are more dynamic.

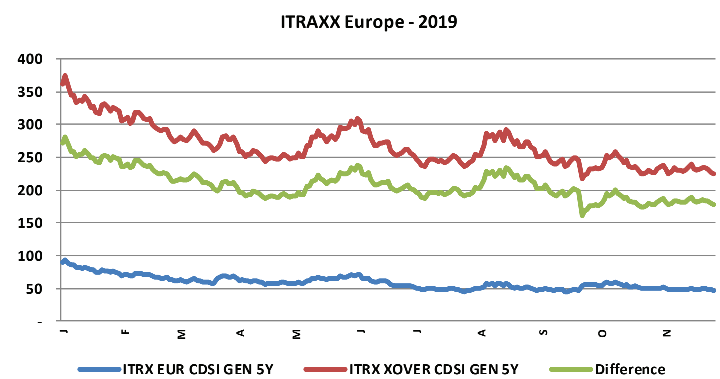




Equity markets are higher relative to where they began the year. This is true for the broader indices, such as the S&P 500, as well as subindices that track the Financial sector and the more specific Insurance industry. Through the most recent date, the S&P 500 was up 25.0% for the year. Equities for the Financial sector and the Insurance industry have modestly underperformed, with values up 24.6% and 24.3% respectively.

Internationally, equity markets have also performed well generally, though the returns vary from market to market. One significant underperformer is the FTSE market in the United Kingdom. In comparison with the broader European indices, which were up more than 20% on the year, the FTSE was only up 10%. This reflects the ongoing confusion and concerns over the United Kingdom's exit from the European Union (commonly referred to as "Brexit").

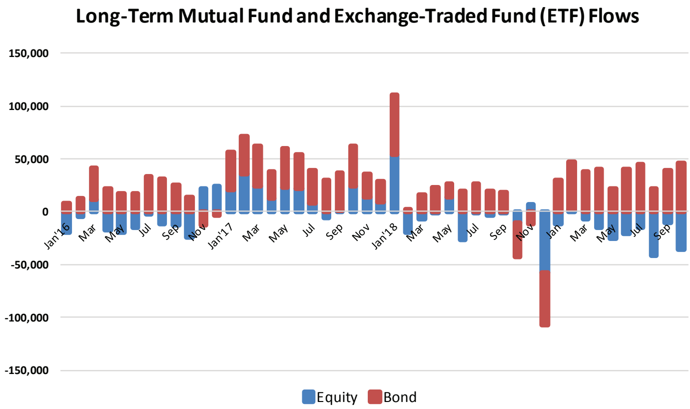


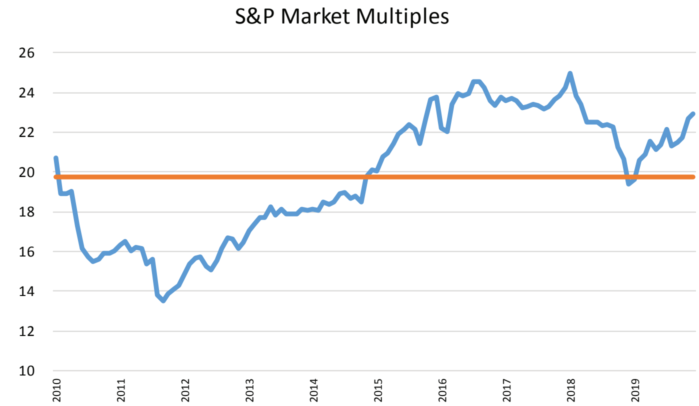


While the vast majority of investments of US insurers are in US issuers, there also has been a growing percentage in non-US issuers, primarily in Europe. Emerging market credit spreads have been particularly volatile, ranging from 450 basis points to over 600 basis points during the year. The broader ITRAXX indices, which are credit default swap indices covering Europe and Asia, have generally tracked US credit spreads. Sovereign debt interest rates in Europe have also declined in 2019 thus far. Yields on the 10-year bonds in the United Kingdom, Germany, and Italy, all declined by 103 basis points, 62 basis points and 158 basis points, respectively.

Market Update (as of November 22, 2019)

As two additional measures of market sentiment that can play a part in current and near term valuations, mutual funds flows and equity market multiples are also very informative. While mutual funds flows, including ETFs, recovered from the negative period at the end of 2018, the upturn has largely been on the bond side and not on the equity side. Cash being invested in equity funds have largely been negative in 2019. Equity market multiples, as exemplified by the S&P 500 have also recovered though not quite returning to the peak in mid-2018. The apparent divergence between equity funds flows and estimates of the S&P 500 multiple appears to be driven by foreign investors that have invested directly into the US stock market.





Final Word

With a few specific exceptions, markets in general have been strong in 2019. This suggests that valuations of US insurers invested assets were not broadly under any pressure. However, there are some pockets of concern. These include commercial real estate values, as well as companies in the Financial and Energy sectors. From a market perspective, the most significant focus has been on the loan market, including holdings referred to as Bank Loans and Collateralized Loan Obligations (CLOs). While there are not many expectations for major increases in defaults and the resulting realized losses, market concerns have led to significant increases in market value volatility. As noted earlier, this is especially the case for non-senior tranches of CLOs.

SOFE Editor's Note: This Market Briefing was originally distributed by Risk & Regulatory Consulting, LLC on December 3, 2019. Reprinted with permission.

About the Author

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PwC NAIC Newsletter

January 2020

The National Association of Insurance Commissioners held its Fall National Meeting in Austin, Texas. This newsletter contains information on activities that occurred in some of the committees, task forces and working groups that met there and includes subsequent conference calls through January 8. For questions or comments concerning any of the items reported, please feel free to contact us at the address given on the last page.

In this issue

Executive Summary

- The Statutory Accounting Principles Working Group adopted new guidance on goodwill limitations, life and health reinsurance and "other derivatives." The working group re-exposed for comment proposed guidance on rolling short-term investments and commission financing, and also directed staff to begin an issue paper addressing topics related to its controversial proposal on investments in collateralized fund obligations.
- The Life RBC Working Group exposed for comment a proposal to correct an issue related to C-3 smoothing and VA voluntary reserves. The Health RBC Working Group exposed for comment a revised "health test" for determining which entities should file the health annual statement and RBC. The Investment RBC Working Group has not met publicly since November 2018, as they are deliberating next steps on the Life RBC bond factor project. However, the Capital Adequacy Task Force exposed for comment proposed changes to the three RBC formulas to implement 20 NAIC bond rating classes for year-end 2020 (but without any factors assigned to the 20 designations).
- The VOS Task Force continued its discussion of removing the filing exempt status for rated "principle protected notes," in 2020 (with no granfathering permitted) and expects to have a revised proposed PPN definition for comment by February. The task force also proposed that the SVO's SSG would assign NAIC designations to RMBS and CMBS securities starting year-end 2020 versus being done by third party vendors.
- The Reinsurance Task Force approved Bermuda, Japan, and Switzerland as reciprocal jurisdictions.
- The Life Actuarial Task Force discussed the upcoming YRT reinsurance reserve credit field test; the task force hopes to have revised guidance in place for the 2021 Valuation Manual. For the first time the task force also discussed a timeline to complete VM-22, PBR for non-variable annuities, with a proposed effective date of January 1, 2023. The task force also had extensive discussions of proposed revisions to AG 49 on indexed universal life illustrations to increase consistency and transparency.
- The Annuity Suitability Group revised the Suitability of Annuity Transaction Model Regulation (#275) to reflect adoption of the SECs new "best interest" standard of conduct regulation.
- The Financial Stability Task Force exposed the NAIC Liquidity Stress Test Framework for comment with the hope of final adoption by the end of 2020.
- The International Insurance Committee discussed the IAIS adoption of its ComFrame and Holistic Framework, noting that "Team USA" had a significant victory this fall in connection with compromises reached on the Insurance Capital Standard.

PwC NAIC Newsletter

January 2020

All documents referenced can be found on the NAIC website naic.org.

Executive Committee and Plenary

The NAIC elected the following officers for 2020: Director Raymond Farmer (SC), President, Commissioner David Altmaier (FL), President-Elect, Director Dean Cameron (ID), Vice-President, and Director Chlora Lindley-Myers (MO), Secretary-Treasurer.

The commissioners approved model law development requests to 1) amend the Holding Company Act and Regulation (#440 and #450) as requested by the Group Capital Calculation Working Group to ensure the appropriate provisions are in place to protect the confidentiality of the group capital calculation submissions, and 2) amend the Unfair Trade Practices Act (#880) as requested by the Innovation and Technology Task Force to better reflect the recent technological developments as current anti-rebating laws are limiting innovation.

Innovation and technology initiatives

Anti-rebating
The Innovation and Technology Task Force continues to discuss anti-rebating, which relates to rebates of premium or other consideration associated with the use of smart home devices and telematics to mitigate risk. The task force had noted uncertainty in the application of state specific anti-rebating laws to new technology and whether additional guidance should be provided.

At the Fall National meeting the task force concluded it should draft amendments to the NAIC's Unfair Trade Practices Act (#880) to address anti-rebating; Executive Committee has adopted their request to do so. The task force's work will focus on Section 4H of the model, Unfair Trade Practices Defined, to clarify what is considered a "rebate" or "inducement."

Artificial Intelligence Working Group
The newly appointed AI Working Group is charged with studying the use and impact of artificial intelligence in insurance including impacts on consumer privacy. At the Fall National Meeting, the working group discussed positive feedback received on the use of the Organisation for Economic Co-operation and Development's Artificial Intelligence Principles (OECD AI Principles) as a basis for insurance industry principles. A draft NAIC AI principles, which would establish fundamental principles that all AI actors should adhere to, was exposed for comment until January 17.

Privacy Protections Working Group
The working group was formed following a referral from the Innovation and Technology Task Force. During the Fall National Meeting, the working group discussed their workplan which is driven by their charge to "review state insurance privacy protections regarding the collection, use and disclosure of information gathered in connection with insurance transactions, and make recommended changes, as needed, to certain NAIC models, such as the NAIC Insurance Information and Privacy Protection Model Act (#670) and the Privacy of Consumer Financial and Health Information Regulation (#672), by the 2020 Summer National Meeting."

The working group received comments on their workplan from interested parties, which focused on the following issues:

- Concerns related to "overregulation" and the cost of compliance,
- Concerns about the short timeline for adopting model amendments (August 2020), and
- A request to continue to seek input from consumer digital rights organizations.

Statutory Accounting Principles Working Group

Significant actions taken by the SAP Working Group during the Fall National Meeting are summarized below. (Appendix A to this Newsletter summarizes all actions taken by the working group since the Summer National Meeting.)

Life reinsurance risk transfer (#2017-28) – At the Fall National Meeting, the regulators adopted three of the four issues exposed in August, which had been drafted by the informal life reinsurance drafting group. The adopted guidance does the following:

1) adds six new SSAP 61R disclosures to capture "risk limiting" reinsurance contracts, modeled on the SSAP 62R disclosures (paragraphs 113-119), effective beginning year-end 2020 financial statements.

2) adds a new Q&A providing guidance on medical loss ratios and reinsurer participation in the MLR rebate, effective immediately, and

3) adds a Q&A to paragraph 2c of A-791 that limits premiums charged by reinsurers for YRT reinsurance: "so long as the reinsurer cannot charge premiums in excess of the premium received by the ceding insurer under the provisions of the YRT reinsurance agreement, such provisions would not be considered unreasonable. Any provision in the YRT reinsurance agreement which allows the reinsurer to charge reinsurance premiums in excess of the proportionate premium received by the ceding insurer would be considered unreasonable." This guidance is effective beginning January 1, 2021.

The proposal to provide new criteria to A-791 guidance for insurers to demonstrate that a non-proportionate contract does not provide "significant surplus relief" was referred back to the informal drafting group for further discussion.

SSAPs 68 and 97 goodwill reconsiderations – The regulators adopted guidance effective for year-end 2019 that clarifies that goodwill resulting from an acquisition of an SCA where goodwill is pushed down is included in the 10% goodwill admittance test based on the acquiring entity's capital and surplus. The adopted guidance applies in narrower situations than previously thought.

The working group then re-exposed additional goodwill-related issues:

- Consideration of ASU 2014-17, Business Combinations-Pushdown Accounting (#2019-12) and whether pushdown accounting will continue to be permitted: NAIC staff is waiting on analysis and examples from interested parties on how pushdown should be applied in various scenarios and holding company structures.

- Proposed revisions to SSAP 68 were re-exposed without further changes to clarify, that in connection with the acquisition of a holding company, purchase price and goodwill amounts must be assigned to the entities that the holding company directly owns for disclosure purposes only (#2019-14). The working group directed staff to revise the Sub-1 Acquisition Overview template to capture this information on new SCA acquisitions.

- The working group also exposed for comment a proposal (#2019-32) to clarify that a look-through of a more-than-one holding company structure is permitted if each of the holding companies within the structure complies with the requirements of SSAP 97, paragraphs 26-27.

SSAP 43R – Collateralized Fund Obligations (#2019-21) – At the Summer National Meeting, the working group exposed for comment proposed significant changes to SSAP 43R which would scope out CFOs and similar structures so that SSAP 43R does not include equity instruments, investments with underlying assets that include equity instruments or any structures representing an equity interest in which the cash flow payments (return of principle or interest) are partially or fully contingent on the equity performance of an underlying asset. It would also not would not allow existing equity assets such as investments in LLC, JVs and LPs that have been securitized as debt instruments and re-acquired by the insurer as being reported as Schedule D bonds.

Concerns from industry noted in its 16-page comment letter expressed concerns that these proposed substantive changes "go well beyond the perceived abuses and possibly affect billions of dollars of other insurer invested assets." Industry representatives are also very concerned about including equipment trust certificates and lease-back securities within the scope of the exposure document.

The working group directed staff to work on the identified issues and has scheduled a conference call for January 8, 2020. The meeting materials for this call include the following statements:

> During NAIC staff's review of CFOs, and efforts to address them within SSAP 43R, NAIC staff determined it was not possible to isolate concerns surrounding some of those investments, as the perceived problems noted by regulators and NAIC staff, including the SVO, were broader than concerns with certain CFO-type investments. As a consequence, NAIC staff recommends addressing this issue holistically, rather than on a piecemeal basis, and proposes the development of an issue paper that will ultimately result in a more precise clarification of the scope of securities within SSAP 43R.

The four issues recommended to be captured in an issue paper are as follows:

- division of guidance between items considered "asset backed securities" under the code of Federal Regulations (CFR) and items that do not meet this definition,

- removal from the SSAP 43R scope investments in the form of a debt instrument where the investment provides that the amount of principal or interest to be returned to the holder is calculated solely with reference to an external market indicator, whether public or proprietary,
- inclusion of guidance, investment reporting provisions, and disclosures to clearly identify and assess "insurer sponsored securitizations," and
- separate review and reference for equipment trust certificates, credit tenant loans and lease-backed securities.

During its January 8 conference call, the working group directed staff to begin drafting an issue paper consistent with the exposed meeting materials.

SSAP 2 – Rolling Short-Term Investments (#2019-20 and #2019-42) – As a result of concerns related to investments which have been structured to qualify for short-term or cash equivalent reporting, with an "anticipation that the investment will continuously roll forward," the working group exposed for comment in August a proposal to provide additional principle concepts in classifying investments as cash equivalents or short-term investments.

The industry comment letter strongly disagreed with the proposed treatment, stating that the risk profile of these investments is commensurate with that of short-term investments or cash equivalents, and that classifying these as Schedule BA assets would distort the level of cash, impacting liquidity ratios, RBC charges and presentation of cash flows.

At the Fall National Meeting, the working group exposed for comment a revised proposal that would exempt intercompany cash pooling arrangements when certain conditions are met, including the requirement that the pool must permit each participant to withdraw, at any time, cash up to the amount it has contributed to the pool. Annual audited U.S. GAAP financial statements of the cash pool would also be required, and which would disclose each participant's pro-rated share of the pool.

SSAP 71 – Commission Financing (#2019-24)
During the Summer National Meeting, the working group exposed for comment a proposal intended to prevent insurers from deferring the recognition of commission expense using "financing transactions" including those in which a third party (referred to as a "super-agent") pays agents non-levelized commissions and an insurer pays the super-agent levelized amounts.

Industry comments focused on three areas: 1) the proposed changes would be very substantive revisions to current guidance, 2) industry's interpretation is that SSAP 71 allows such transactions when the contractual terms are tied to persistency of the underlying insurance policies, and 3) the proposed revisions might be interpreted to require that traditional persistency commissions for multiple years should be accrued at inception of the policy.

At its meeting in Austin, the working group agreed to expose revisions to clarify that the intent of the proposal is not to change the annual accrual of normal persistency commissions. However, the regulators reiterated their belief that the original intent of SSAP 71 was that for levelized commission arrangements that represent repayment of an advance should be accrued as a liability. The following footnote was revised and re-exposed for comment: "the guidance … notes that that levelized commissions which use a third party to pay agents that are linked to traditional elements require establishment of a liability for the amounts that have been paid to the agents and any interest accumulated to date."

SSAP 25 – Related Parties, Disclaimers of Affiliation and Variable Interest Entities (#2019-34) – The working group exposed for comment proposed amendments to SSAP 25 to expand significantly the definition of a related party. The proposed additions include the following:

- any person or entity that has been identified under U.S. GAAP or SEC reporting as a related party,
- companies and entities which share common control, such as principal owners, directors, or officers, including situations where a principal owners, directors, or officers have a controlling stake in another reporting entity, and
- any non-controlling ownership greater than 10% results in a related party classification regardless of any disclaimer of control or disclaimer of affiliation.

The proposal also states that insurers whose relationship is subject to a disclaimer of affiliation or control filed under the Insurance Holding Company Act are still considered related parties for purposes of SSAP 25 and are subject to related party disclosures.

SSAP 51 – VM-21 Grading (#2019-47) – As PBR for variable annuities is retroactive for all policies in force and can be phased in over three years beginning January 1, 2020 (and up to seven years with domiciliary regulator approval), the SAP Working Group exposed for comment proposed transition guidance. While the reserves are increased one-third over three years, the proposal would require allocation from unassigned funds to segregated surplus for the amount not yet recognized in VA reserves. Although total surplus would not change, the amount of "earned surplus" would decrease, which could affect the amount of dividends a company could pay without commissioner approval.

Future SAP Working Group projects
LIBOR – NAIC staff is actively monitoring the FASB discussion of reference rate reform; once the FASB ASU is issued (expected in first quarter of 2020), the NAIC will "immediately" review the guidance and subsequently expose a document for comment.

Blanks Working Group

The working group met by conference call in October and December, and adopted the following significant items, which are effective for 2020 annual statements (unless stated otherwise).

- modify the illustration to Note 33 to disclose individually separate accounts with guaranteed products and separate accounts without guaranteed products so that the information can be data captured (2019-21BWG).

- add a quarterly Schedule DB, Part E and revisions to Note 8 – Derivatives, which are required by SSAP 108, effective the first quarter of 2020 (2019-23BWG).

- add clarifying instructions to address implementation questions related to the new Analysis of Operations by Lines of Business pages (2019-26 BWG). (Although the proposal was adopted too late to be required for 2019, the working group recognizes the guidance is helpful for this year-end.)

Risk-based capital

The regulators made the following significant progress on RBC projects. (Appendix B summarizes other actions taken by the various RBC Working Groups since the Summer National Meeting.)

Comprehensive fund referral
At the Summer National Meeting, the Capital Adequacy Task Force agreed to take on a project to review the RBC charges for mutual funds that predominantly hold bonds that have been designated as such by the SVO. At its meeting in Austin, the task force reviewed the extensive comment letters received, most of which fully support the proposed change. However, a 2018 comment letter from the AAA (from a prior exposure of the issue at the VOS Task Force) expressed concerns about unintended consequences of such a change as a result of significant differences between investments in individual bonds and mutual funds which hold bonds. These differences include that the investor has no creditor relationship with the fund, and that the fund does not provide a contractually guaranteed stream of cash flows. The task force will continue this discussion in 2020.

Investment RBC
The Investment RBC Working Group has not met since the 2018 Fall National Meeting. There is uncertainty as to status of the working group's bond factor proposal for life insurers (in process since 2011) and whether further independent validation of the AAA-proposed model should be performed. This fall the ACLI sent a letter of concerns to the chair of the IRBC Working Group listing unresolved issues: the "black box" nature of the AAA model, the methodology for the proposed portfolio adjustment, the "cliff effect" between rating classes, and the request for industry to pay for further independent validation of the proposed factors for the 20 rating classes. The next meeting of the IRBC Working Group has not been scheduled.

Other projects to implement the 20 rating classes for bonds are continuing; on December 30, the Capital Adequacy Task Force exposed for comment until February 14, proposals for Life, P/C and Health RBC to implement the 20 NAIC classes for year-end 2020 (2019-16-CA). The exposed document does not include any proposed risk charges. The chair of the task force stated that adoption for 2020 RBC filings will allow the regulators to start "impact analysis" and should not be interpreted to "impose any deadline on the development of the factors."

Life RBC
VA Framework and C-3 smoothing – At the Fall National Meeting, the Life RBC Working Group discussed a newly identified issue in which the impact of changes to previously-held voluntary

reserves was not properly considered during the development of the VA Framework. The C-3 charge smoothing methodology inherently incorporates the prior year's voluntary reserves and the C-3 RBC amount without any adjustments for changes to the voluntary reserves. If there are voluntary reserves held under the old framework that are no longer held under the new VA Framework, these reserves could inappropriately reduce the C-3 RBC requirement via the three year phase-in methodology.

Since early adopters are not permitted to elect the phase-in option, the phase-in issue does not have any impact on the year-end 2019 variable annuity reserves. However, early adopters that employ smoothing for C-3 RBC purposes and are making changes to voluntary reserves for year-end 2019 would be impacted.

The 2019 Valuation Manual and RBC instructions have been finalized. However, the working group is considering issuing additional guidance for 2019 related to this issue. The working group has exposed for comment proposed changes to the 2020 RBC instructions for variable annuities (LR027), which address this issue; comments are due by February 7.

Longevity risk – The Longevity Risk Subgroup finalized its preliminary proposal in November to capture this risk in RBC for certain annuity products and presented it to the Life RBC Working Group at the Fall National Meeting. The proposal was developed jointly with the AAA's Longevity Risk Task Force and would apply longevity C-2 factors to base statutory reserves. The proposed pre-tax factors are 1.71% to the first $250 million of total reserves of in-scope products, 1.08% and .95% to the next $250 and $500 million, respectively, and .89% for reserves over $1 billion.

The subgroup continued to have extensive discussions this fall as to whether to include covariance between longevity and mortality risks in the proposal, with industry in support of including a correlation adjustment and subgroup members generally not in favor of this concept. The AAA's LRTF recommended including covariance in the final proposal and the ACLI's comment letter pointed out that removing correlation in the formula is equivalent to a +100 correlation factor.

After significant discussion at the Fall National Meeting, the Life RBC Working Group exposed for comment until February 7, the subgroup's recommendation for a longevity risk charge (2019-13-L), along with the LRTF's alternative that includes a placeholder for covariance. The working group also agreed to scope out longevity reinsurance transactions from this exposure draft, with direction to the subgroup to continue to work on this aspect. The subgroup's summary memo on its longevity risk recommendation notes some of the outstanding issues related to longevity reinsurance:

- Basis for the factors – Statutory reserves may not be the appropriate basis to which the factor applies since reserves are generally zero at inception.

- Premium offset – Whether and how to allow a portion of future premiums due to the reinsurer under a reinsurance arrangement to offset the capital requirement resulting from applying the factor to the present value of benefits, and

- Treatment for primary insurer – How capital would be reflected for a primary insurer that has reinsured longevity risk to a reinsurer.

The goal of the subgroup is to finalize the proposal for implementation for 2020 RBC filings, effective for all in-force annuity payout business as of year-end 2020.

Mortality Risk – The AAA's C-2 Work Group is reviewing the assumptions and methodology for life insurance (individual, industrial, group and credit life) to update the original 1993 factors. During the Fall National Meeting, the working group heard an update from the Academy's C-2 Work Group, whose overall approach classifies mortality risk into four risk components: volatility risk, level risk, trend risk and catastrophe risk.

Based on the work group's analysis, they have identified the following "estimated directional impacts" on the C-2 factor: volatility and level risk are trending down (5-10% and 20-30%, respectively) and trend and catastrophe risk are trending upwards (5-15% and 0-5%, respectively) for a "possible" overall decrease in the C-2 requirement. The biggest reductions are due to exclusion of AIDS scenarios using early 1990s estimates and improvement in mortality levels compared to the original factors. The Academy report emphasizes that more analysis is needed. The C-2 Work Group hopes to complete preliminary factor development in 2020.

Long-horizon equity investments – At the Summer National Meeting, the Life RBC Working Group agreed to take on a project proposed by Allstate to consider revising the RBC charge for unaffiliated common stock supporting long horizon contractual commitments, which would "integrate the concept of time diversification into the equity RBC framework." The proposal recommends a 15% credit to the RBC charge for equity investments held 7 years or longer, with significant guardrails. (The current life RBC charge for common stock is 30%.) Allstate's proposal was exposed for comment.

During an interim call the working group discussed the 7 comment letters received on the proposal, which expressed a variety of views including the NYDFS being "vehemently opposed" to the proposal. After extensive discussion, the working group voted unanimously (with one abstention) to reject further study of the proposal. The comment letter from the chief actuary of the Minnesota Department of Commerce suggested that any future proposal include an analysis of the theory for a reduced common stock charge, in addition to the history of stock market returns over time.

Growth risk — The working group discussed comments on the hand-off memo from the Operational Risk Subgroup on potential further work on life growth risk. The working group member from NY stated that the view of the NYDFS is to continue work on a growth risk charge. The ACLI's comment letter cited three reasons against the need for an explicit risk charge: regulators already have tools to assess growth risk, rapid growth is less prevalent than in health or P/C insurance, and measurement is difficult and use of a single year charge is inappropriate. The working group concluded that they would no longer actively pursue work on this project for the near future.

P/C RBC

Review of underwriting risk component – The AAA representative updated the P/C RBC Working Group on its timeline for review of the underwriting risk components. The AAA expects to provide its report on the investment income adjustment at the 2020 Spring National Meeting, its work on the loss concentration factor and premium concentration factor at the Summer National Meeting and its report on line of business underwriting risk factors at the Fall National Meeting.

Catastrophe risk – The Catastrophe Risk Subgroup heard a presentation from the AAA entitled Wildfire: Lessons Learned from the 2017-2018 California events. The presentation focused on discussion of the "wildland urban interface," wildfire mitigation and modeling. The report concludes that there is "need for more development and broader acceptance of wildfire modeling."

The Academy also presented on the Actuaries Climate Index, which is an educational tool providing information about weather trends in the U.S. and Canada, and which classifies North America into 12 regions, and analyzes each region separately. For more information, see their website.

Other 2020 P/C RBC projects – At its meeting in Austin, the P/C RBC Working Group added a new item to its working agenda to evaluate the possibility of allowing additional third-party models to calculate catastrophe model losses; the expected completion date is year-end 2020 or later. The working group plans to discuss in 2020 the possibility of using the NAIC as a centralized location for reinsurer designations, due to all the reporting errors in this area. The regulators will also consider whether the uncollateralized reinsurance R3 charge should be revised for recoverables from solvent run-off reinsurers, captives, and RRGs.

Health RBC

Health Annual Statement Test – To address the one-third of "missing" health premiums filed on other blanks, the Health RBC Working Group exposed for comment a proposed revised "health test," which would move filers who write predominantly health business (premium ratio of 90% or more for the current year and prior year) and file on the life or property/ casualty blank to begin filing on the health blank. The proposed tentative effective date is the first quarter of 2021. The proposed instructions provide the specific individual and group lines of business that should be included in the calculation. The proposal will be field tested on volunteer companies.

At the Fall National Meeting, the working group heard comments from the ACLI expressing concern of the cost to implement the revised thresholds if entities would be required to "flip" from one annual statement to another between years based on the revised thresholds. The working group agreed this is a valid concern and will ask the Health Test Ad Hoc Group to consider these comments.

Health care receivable factors – In July, the Health RBC Working Group re-exposed for comment a proposal (2019-04-H) to apply an additional charge for health care receivables accrued in the prior year but not received in the current year. Pharmaceutical rebate receivables would receive a 5% charge, and all other healthcare receivables would be assessed a 19%

charge. Based on comments received, the working group voted to reject the proposal, and instead will create guidance on health care receivable reporting to improve data quality. This information gathered 2020 through 2022 will be used to develop factors. At the Fall National Meeting, the working group exposed the reporting guidance for comment until January 7.

Health RBC bond factors – The Health RBC Working Group continued its evaluation of the AAA-proposed bond factors for health RBC. Based on comments received from industry, the working group agreed to ask the AAA to incorporate investment income in the modeling. The regulators have also asked the Academy to model factors using a five-year time horizon, which will presumably increase the bond factors. (The current proposal uses a 2-year time horizon.) The working group has not yet agreed to reconsider the assumptions in the bond portfolio adjustment, as requested by industry.

Long-term care HMO guaranty fund – The working group had been asked to assess whether any changes to the health formula are necessary as a result of recent revisions to the Life and Health Insurance Guaranty Association Model Act (#520). The working group concluded that given that a .5% factor is applied to direct earned health premiums under the existing guaranty fund assessment risk charge, no change is warranted.

Valuation of Securities Task Force

The task force had significant activity on the following projects.

P&P Manual amendment adoptions

Ground lease transactions – As part of its larger project to clarify the statutory classification of credit tenant loans, the task force, the SVO and industry representatives worked together to develop guidance for ground lease financing (GLF) transactions as a new asset class. GLF transactions typically have two components: (1) a ground lease for a long period (e.g. 99 years) between a ground lessor who owns the land and a ground lessee who plans to develop the land, and (2) the subleasing of space to a business such as a hotel or warehouse to one or more tenants under shorter leases, e.g. 5-15 years.

During its meeting in Austin, the task force adopted its detailed guidance exposed in October, which is effective January 1, 2020. This will result in the SVO reviewing each GLF transaction and determining whether each is eligible for Schedule D reporting and an SVO rating. The new guidance also includes long-term transition provisions: "[a] GLF transaction reported as a CTL transaction on Schedule D, acquired prior to January 1, 2020, and reported with an NAIC Designation produced under filing exemption, can continue to be reported on the basis of that Eligible NAIC CRP Rating until sold or disposed of."

Regulatory transaction designations – The task force adopted proposed designations and guidance for regulatory transactions: RTS will apply to a regulatory transaction for which a state insurance department requested assistance from the SVO in reviewing the security, and the SVO provided an analytical value, e.g. 3RTS. RT securities do not follow this process and are not eligible for an SVO analytical value and would receive an NAIC 6 designation. The new designations are optional for year-end 2019 annual statements and are required as of January 1, 2020.

P&P Manual amendment exposures

Principal Protected Notes – At the Summer National Meeting, the task force exposed for comment a significant proposal to revise the definition of principal protected notes and remove this class of security from eligibility for filing exemption. After hearing concerns from industry this fall, including SVO staff participation in meetings with industry representatives, the task force has agreed to modify the definition to narrow its scope.

At the Fall National Meeting, the director of the SVO noted, based on these conversations, that a

> "general framework has evolved that identifies principal protected notes (PPNs) as a type of security that repackages one or more underlying investments and for which contractually promised payments according to a fixed schedule are satisfied by proceeds from an underlying bond(s) that, if purchased by an insurance company on a stand-alone basis, would be eligible for filing exemption, but for which the underlying investments could generate potential returns in addition to the contractually promised cash flows paid according to a fixed schedule *or* the contractual interest rate paid by the PPN is zero or below market *and* the insurer would obtain a more favorable risk-based capital charge or regulatory treatment for the PPN through filing exemption than it would were it to separately file the underlying investments in accordance with the policies in the P&P Manual."

The task force anticipates exposing a revised definition during its first meeting in 2020 (likely February), with possible adoption at the Spring National Meeting. The intent of the task force is for the revised definition to be effective for all in-scope PPNs; the chair of the task force stated that he feels strongly that no grandfathering of previously acquired principle-protected or combo notes should be permitted.

Financial modeling instructions for RMBS/CMBS
The task force exposed for comment until February 7 proposed substantive changes to the P&P Manual to remove the instructions for the annual financial modeling of RMBS and CMBS by external modeling companies. SVO staff would instead produce a single NAIC designation and designation category for each RMBS and CMBS security. The task force hopes to implement the revisions for year-end 2020 reporting to be consistent with the 20 NAIC designation categories adopted by the Blanks Working group for year-end 2020 investment schedules. (SVO data systems for all rated securities are in the process of being updated for the 20 rating classes.) The task force will also be working with the SAP Working Group since the proposed revisions would also affect SSAP 43R guidance.

New SEC rule on ETFs – The task force exposed for comment until January 23 proposed amendments to the P&P Manual to remove references to SEC exemptive orders from the descriptions of ETFs. The intent of the SEC rule change is to modernize the regulatory framework for ETFs.

Other projects
Infrastructure investment study – The task force heard an update from the manager of the NAIC's Center for Insurance Policy and Research on its study of infrastructure investments as an asset class and insurance industry participation in this market. This fall the CIPR discussed an appropriate definition of "infrastructure" and concluded it will first focus on economic (vs social) infrastructure, which is tentatively defined as "long-lived, capital intensive, large physical assets that provide essential services or facilities to a country, state, municipality, or region and contributes to its economic development or prosperity."

Work will resume in 2020 on this project including review of comments received related to infra-structure market size, credit performance and NAIC and state regulator treatment of such investments.

CRP data feeds for private letter ratings – SVO staff reported that automating the data feeds for private letter ratings from Fitch, Morningstar and HR Ratings de Mexico has been deferred due to resource constraints. As a result, the CRPs or insurers owning PL securities rated by these 3 CRPs will have to file the ratings letters with the SVO for year-end 2019 reporting.

Group capital calculation

The Group Capital Calculation Working Group held calls ahead of the Fall National Meeting to discuss the GCC confidentiality provisions and receive comments. The working group recommended that changes be made to NAIC models (Insurance Holding Company System Regulatory Act and Insurance Holding Company System Regulation with Reporting Forms and Instructions) to incorporate the confidentiality provisions, which was adopted by Executive Committee in Austin.

On January 7, 2020, the GCC Working Group sent a request to the Group Solvency Issues Working Group asking them to assist with drafting the confidentiality provisions. The request also included a listing of entities that the GCC Working Group suggests would be exempt from filing a group capital calculation:

- small mutual insurance companies,
- groups required to file with the U.S. Federal Reserve, but separately require that such groups provide a copy of the filing with the Federal Reserve to the lead state,
- groups for which the group-wide supervisor is a reciprocal or qualified jurisdiction per the Credit for Reinsurance Model Law, and
- groups not considered a reciprocal or qualified jurisdiction but for which the group-wide supervisor: i) accepts the GCC for any U.S. insurance group; or ii) recognizes the GCC as an acceptable international capital standard; and iii) has been sponsored by an accredited lead-state.

The working group gave an update on the GCC field testing at the Fall National Meeting noting that of the 32 submissions, 28 have been discussed with the lead states. All meetings with lead states and volunteers should be completed by mid-January.

The working group also shared summarized preliminary feedback from volunteers, which focused on how to make the template and instructions easier to use. Specific comments related to non-insurance entities were to define regulated versus non-regulated non-insurance entities and to consider setting a materiality threshold for inclusion of non-insurance/ non-financial entities.

The working group plans to take four to six weeks to continue to compile the results and make improvements to the GCC template and instructions. The NAIC plans to submit the GCC as the Aggregation Method for consideration for comparability with the Insurance Capital Standard. See further discussion of the ICS in the summary of the International Insurance Committee.

Reinsurance Task Force

Implementation of reciprocal jurisdictions
Now that the final amended Credit for Reinsurance Model Law and the Credit for Reinsurance Model Regulation have been adopted by the NAIC and reflect the necessary guidance to be consistent with the EU and UK Covered Agreements, the Reinsurance Task Force began work on implementation activities.

During an interim conference call, the Reinsurance Task Force adopted revisions to the "Process for Evaluating Qualified and Reciprocal Jurisdictions" to incorporate changes consistent with the revised models and add a new process for evaluating reciprocal jurisdictions. They also adopted re-evaluations to continue to recognize France, Germany, Ireland, and the UK as qualified jurisdictions. Even though these countries are automatically reciprocal jurisdictions, the re-approvals as qualified jurisdictions are necessary until the Covered Agreements have been fully implemented (no later than September 22, 2022).

At the Fall National meeting, the Reinsurance Task Force adopted evaluations to recognize Bermuda, Japan, and Switzerland as reciprocal jurisdictions, which provides more favorable treatment to assuming entities in those domiciles than their current "qualified jurisdiction" classification (due to the elimination of collateral requirements when other conditions are met). The task force also exposed a blanks proposal to incorporate necessary changes to the annual statement and instructions, e.g. changes to Schedules F and S, as a result of changes to the credit for reinsurance models.

Financial Regulation and Accreditation Committee

At the Fall National Meeting, the committee adopted the 2019 revisions to the Credit for Reinsurance Model Law (#785) and the Credit for Reinsurance Model Regulation (#786), which conform to the EU and UK Covered Agreements, as accreditation standards. States must adopt the revisions by September 1, 2022 to avoid federal pre-emption.

The committee also adopted the Term and Universal Life Insurance Reserve Financing Model Regulation (#787) as a new accreditation standard effective September 1, 2022, which establishes standards for reserve financing arrangements for term life and universal life insurance policies with secondary guarantees. The committee had concluded in 2017 that it should defer adoption of #787 as an accreditation standard until the process to revise the credit for reinsurance models for the Covered Agreement was completed. Adoption of this model regulation as an accreditation standard together with the credit for reinsurance models will allow states to consider all the revisions at the same time.

Principles-based reserving

Valuation Manual amendments
At its meeting in Austin, the Life Actuarial Task Force exposed four VM Amendment Proposal Forms as noted below (APFs 2019-60 through 62 are exposed until January 31; APF 2019-33 is exposed until February 7).

APF 2019-33 clarifies that group certificates meeting certain requirements should follow the same reserve requirements as other individual ordinary life contracts.

APF 2019-60 removes the requirement for companies to apply the same credibility method to all business subject to VM-20.

APF 2019-61 clarifies that universal life policies with secondary guarantees are intended to be excluded from the Life PBR Exemption, regardless of whether the secondary guarantee is embedded in the base policy or is a separate rider.

APF 2019-62 emphasizes the requirement to reserve for additional risk arising from the conversion of term life insurance and provides guidance on Life PBR Actuarial Report content relative to conversions.

In October LATF members adopted the AAA Life Experience Committee and SOA Preferred Mortality Oversight Group Valuation Basic Table Team [Joint Committee] Individual Life Insurance Mortality Improvement Scale Recommendation—for Use with AG 38 and VM-20. The updated scale reflects a reduction in mortality improvement, reflective of recent mortality trends.

The May 2019 adoption of APF 2019-38 established the 2001 Commissioners Standard Ordinary ultimate mortality table as the valuation standard for Guaranteed Issue business issued after December 31, 2019. Regulators consider this change to be a temporary solution, and at the meeting in Austin LATF members voted to establish a subgroup to study the issue and provide recommendations regarding valuation requirements for Guaranteed Issue Life business including any appropriate mortality table(s) for valuation as well as nonforfeiture. Initial recommendations are to be provided to LATF by the 2020 Summer National Meeting.

<u>YRT Reinsurance considerations</u>

LATF members continued discussion of the Academy YRT Field Test to study the impacts of proposed alternative methodologies for reflecting YRT reinsurance reserve credit in life deterministic and stochastic reserves. The NAIC engaged Oliver Wyman to facilitate the study, and progress to date includes distribution of a field test pre-survey to recruit participants, development of field test instructions, model office analysis and a survey on broader industry practices.

Of 187 companies requested to participate, so far less than 10 have agreed, with several companies citing resource constraints as a limitation. In Austin, LATF members heard an update from the Academy YRT Field Test Project Oversight Work Group on its model office analysis, which will provide regulators with representative impacts of potential solutions and will supplement the field test results.

Amendment proposals 2019-40, 2019-41 and 2019-42 will be assessed in the model office and during the field test, with APF 2019-39 serving as a baseline. APF 2019-39 limits the YRT reserve credit to a simple ½ cx, with no modeling of the corresponding reinsurance cash flows, while the other APFs incorporate revisions which address alternative mortality improvement scenarios, reinsurance premium margins and prudent estimates including all counterparty actions. The aggressive project timeline targets April 15, 2020 for submission of findings and recommendations to LATF, in hopes that the task force may adopt a recommendation in the May-June timeframe to revise the 2021 Valuation Manual.

<u>Experience reporting</u>

At the Summer National Meeting, LATF members exposed APF 2019-56, which would expand the required data elements within VM-51 to facilitate separation of mortality into segments covering the range of underwriting for individual life products, including simplified issue, guaranteed issue and fully underwritten with or without accelerated and algorithmic underwriting. At the meeting in Austin, LATF members discussed three comment letters expressing various concerns including data privacy and security, data complexity/granularity being requested, costs to companies of providing the additional data and timing considerations. The AAA/SOA Joint Committee, which drafted the APF, will consider these comments and plans to present responses to all comments to LATF in March.

The joint committee also presented to LATF recommendations for methods based on analytics to determine when there is enough change in the underlying valuation basic mortality, relative to the experience, to warrant changes to the valuation basic table (VBT). VM-20, Section 9.C requires companies to use an industry mortality table for determining their prudent best estimate mortality, and the industry table is currently based on the 2015 VBT and mortality improvement factors recommended by the Society of Actuaries. Once PBR is mandatory (as of January 1, 2020), the corresponding required data collection within VM-51 will significantly increase the number of contributing companies and amount of exposure and claims. The joint committee recommends that this additional data be used to develop metrics which can then be evaluated relative to established triggers for action. A recommendation to LATF is planned for summer 2020.

<u>VM-22 Fixed Annuity PBR</u>

LATF heard updates from the VM-22 Subgroup, the Academy SVL Interest Rate Modernization Work Group and the Academy Annuity Reserves Work Group (ARWG) on activities related to fixed annuity PBR. VM-22 Subgroup discussions have focused on reinvestment risk and modifications that may be required to address this risk, particularly considering the ongoing low interest rate environment; no definitive actions have been recommended.

The ARWG is contemplating expanding the current VM-22 to incorporate a fixed annuity PBR framework that includes accumulation annuities as well as income annuities and would be generally consistent with the current VM-20 and VM-21 requirements, including exclusion tests and the basis for establishing discount rates and starting assets. Retrospective adoption is also being considered, similar to VM-21, which would allow for increases in single premium immediate annuity reserves that may no longer be sufficient due to reinvestment rate risk. The non-variable annuity PBR project timeline targets spring 2020 for ARWG presentation of the framework to LATF, approval by LATF for field testing in fall 2020, industry field testing in 2021, with a proposed final adoption of non-variable annuity PBR to be effective January 1, 2023.

The SVL Interest Rate Modernization Work Group continues work on a methodology to establish non-SPIA valuation rates, including valuation rates for products that pass the VM-22 exclusion test contemplated and under development by the ARWG. The plan is to refresh current valuation rates using a methodology similar to that underlying current rates. Contemplated changes to the framework include a new reference index (Treasuries plus VM-20 spreads) and differentiators corresponding to product features generating additional risk exposure. The work group is also considering whether valuation rates should be locked-in at issue or require future unlocking. The proposed effective date for this guidance is January 1, 2023.

Life Actuarial Task Force

IUL Illustration Subgroup

LATF members received an update from the Indexed Universal Life (IUL) Illustration Subgroup on its discussions of proposed modifications to AG 49 to increase consistency and transparency in illustrations of products with different risk profiles, including whether any changes should apply retroactively to illustrations for policies in-force prior to the effective date applicable to new policies.

At the Summer National Meeting the subgroup requested public comments on two questions regarding illustrated rates for products with bonuses and multipliers. Nine comment letters were submitted proposing various alternatives for adjusting the illustrated rates for products with these features, and during a call in October LATF members voted (13 to 6) to move forward with revisions to AG 49 that eliminate any difference between the illustrated rate for products with index multipliers and products without index multipliers.

Public comments were then solicited regarding the timing of the effective date of changes to the guideline, and applicability to in-force illustrations. Subgroup members hoped the clarity in direction would lead to an easy and smooth process to complete the updates, but that does not appear to be the case. In November the subgroup discussed comments on the latest round of questions, and this discussion continued during what may have been the most anticipated agenda item during the LATF meeting in Austin.

On the question of timing of the effective date of changes, consensus is building to establish an effective date of five to twelve months after adoption, as companies have expressed the need for enough time to implement the necessary systems and process changes.

On the question of applicability of changes in AG 49 to in-force business, consensus is leaning toward application to new business only, possibly with a requirement for a supplemental illustration for in-force policies that complies with the new requirements; however, there are opposing views. The primary concern expressed in views opposing retrospective application is policyholder confusion regarding performance and suitability of their current policy.

Comments on the technical matters introduced nuances related to other index return enhancements such as cap buy-ups, raising questions about whether such features need to be addressed separately in AG 49 or can be incorporated with changes related to multipliers and bonuses. The complexity underlying IUL products and the multitude of product features and variations available has created challenges for the subgroup in achieving clarity in the guidance, without prescribing disclosure requirements that would be handled separately.

After an hour of passionate debate in Austin, LATF members took a role-call vote and voted (17-1) to subject cap buy-ups and index return enhancements to constraints “reasonably similar” to the constraints to be applied to multipliers. The subgroup will incorporate changes to address this decision in revisions to AG 49; a timeline for such revisions was not discussed.

Annuity suitability

The Annuity Suitability Working Group has been tasked with revising the Suitability of Annuity Transaction Model Regulation (#275) to consider the SEC’s new “best interest” standard of conduct regulation, which is effective June 30, 2020. The new standard of conduct is more than the NAIC’s current suitability standard, but is not a fiduciary requirement. The working group met frequently since the Summer National Meeting to draft and discuss revisions.

At the Life Insurance and Annuities Committee's meeting in Austin, the chair of the working group stated that the draft revisions "incorporate a best interest standard to require producers and insurers to satisfy requirements outlined in a care obligation, a disclosure obligation, a conflict of interest obligation and a documentation obligation to meet this standard of conduct." Except for the draft templates, the committee approved the revised model during the meeting.

Subsequent to the Fall National Meeting, the Annuity Suitability Working Group met via conference call to continue work on the templates and other technical revisions. The Life Insurance and Annuities Committee adopted the proposed revisions to the model regulation with the revised templates on an interim conference call on December 30.

Retirement security initiative

The Retirement Security Working Group held its first two public conference calls this fall to begin progress on its workplan to "develop and adopt a final issue document that incorporates an education campaign, education curricula, anti-fraud alerts related to insurance and how insurance impacts and can aid with retirement security. The document should include a plan for continued support and promotion of retirement security." The next meeting of the working group is scheduled for January 16 when the regulators will discuss consumer financial literacy and hear comments on its workplan.

Long-term care issues

Long-Term Care Insurance (EX) Task Force

At the Fall National Meeting, the task force heard an update from its six workstreams; the meetings of the workstreams are not currently open to the public but are expected to be opened at some time in the future.

Multi-state rate review practices – The goal of this workstream is to develop a recommendation for a consistent national approach to multi-state LTCI rate reviews. The workstream members are currently discussing base questions and criteria for selecting a review methodology.

Restructuring techniques – This workstream will focus on alternatives to receivership for LTC insurers. This workstream group is developing a set of guiding principles and a scope of work.

Reduced benefits options – This group is focused on information gathering on practices for the state regulatory review of reduced benefit options in lieu of premium increases, and consumer notices sent by companies. The group will also evaluate whether reduced benefit options offered to consumers are fair and equitable.

Valuation of LTCI reserves – This workstream is focused on multi-state coordination/communication of the review of the financial condition of LTCI insurers and actuarial reviews of LTCI blocks. Much of this work is being done by the Valuation Analysis Working Group's review of LTC insurers' AG 51 (Application of Asset Adequacy Testing to LTCI Reserves) reports. In 2019, the VAWG's focus was on morbidity improvement, rate increases and investment return assumptions. In 2020, the focus will be on morbidity, including cost of care projections, effect of underwriting and what happens with older age policies.

Non-actuarial inputs to state rate approvals – As a result of a 14-state survey on departments' policies, practices and authority to modify rate increases based on non-actuarial factors, the regulators learned that nearly all states responding indicated that they have authority to consider non-actuarial factors in the rate approval process. The top three factors were phase-in periods, caps (or limits) on the amount of allowed rate increases and waiting periods between rate increase approvals and subsequent requests. The workstream also found that the length of phase-in and waiting periods and the threshold for caps varies from state to state. The workstream will use the survey information to develop recommendations for possible best practices.

Data call design and oversight – This workstream is exploring whether additional data is needed to support the work of the task force or workstreams. To that end, the NAIC issued an RFP for a consultant to conduct a data call of 19 insurers selected by the regulators from the seven states responsible for this workstream in order to "accumulate, analyze, and describe to the NAIC the current level of rate inequity among states' policyholders. The selected firm will review, analyze, and offer suggested improvements prior to the data call." The selection of the chosen firm is expected in February 2020.

LTC actuarial topics
The LTC Actuarial Working Group heard an update on Academy LTC activities: the Practice Note on LTC Combo Product Valuation has been adopted and is posted the Academy's website. The non-binding Practice Note provides guidance to actuaries on current and emerging practices with respect to the considerations in the statutory, GAAP and tax valuation of long-term care combination products.

A representative of the joint Society of Actuaries and Academy LTC Valuation Work Group updated the regulators on progress on their charge from the NAIC to develop proposed mortality and lapse tables for use as prescribed assumptions for statutory minimum reserves. The work group expects to provide a presentation of its progress at the 2020 Spring National Meeting and a formal report at the Summer National Meeting.

The working group received a presentation on the current SOA LTC experience study. Data has been collected from 19 companies; new data not provided in prior experience studies include additional underwriting information, expanded benefits information and ICD 9/10 claims information. Initial validation of data has been completed, and the SOA expects to complete work by the end of May.

AG 51 – The chair of the LTC Valuation Subgroup presented its final AG 51 Guidance Document–Year-End 2019, which was adopted by the working group. The five-page document asks for information related to companies' LTC asset adequacy testing that is being sent to each company filing an Actuarial Guideline 51 Memorandum. The response to the questionnaire will be reviewed by the subgroup.

Health Actuarial Task Force

HATF heard an update from CMS' Federal Center for Consumer Information and Insurance Oversight whose report addresses the Risk Adjustment Data Validation (RADV) project for the ACA. RADV is used to validate the data submitted for risk adjustment payments under ACA. The results of the RADV will be used to consider if changes are required for future RADV updates. Next steps for the current RADV include comments to the white paper, due January 6.

Financial Stability Task Force

FSOC developments
The task force heard an update that Financial Stability Oversight Council has approved the proposed revisions to the Nonbank Designations guidance (Final interpretive guidance) which puts in place a cost/benefit analysis requirement before any entity is designated as systemically important. The guidance also uses an activities-based approach to identify and address risks to stability and provides more transparency around FSOC's process for nonbank financial companies. (See PwC's views on the final guidance here.)

Liquidity stress testing framework
The Liquidity Assessment Subgroup has continued its work on development of a life insurance-specific liquidity stress testing framework, and at the Fall National Meeting, the Financial Stability Task Force exposed a draft 2019 NAIC Liquidity Stress Test Framework for comment until February 7. The liquidity stress test includes a baseline, a financial crisis-like severely adverse stress scenario and an interest rate shock and downgrade stress scenario. The framework also requests insurer-specific information related to the most severe worst-case scenario used in an insurer's existing stress testing processes. The prescribed assumptions for the severely adverse stress scenario are based on the Dodd-Frank Act Stress Testing Rules and the Capital Plan Rule; however, a "what-if" modification has been added so that the insurer cannot use other internal and external funding sources such that expected asset sales would be the only source.

Verbal comments made by two life insurers at the meeting in Austin noted that the proposal is consistent with what they were hoping for and focuses on an activities-based approach.

Once the framework is finalized (by the end of 2020), lead state insurance regulators can use their examination authority to obtain the results; however, the task force intends to work on a long-term confidentiality solution. Based on the scoping criteria adopted in 2018, 23 large life insurers will be completing the stress testing. Once the results are submitted, the subgroup will aggregate the results to determine the impact to markets in times of stress and to inform future runs of the stress test.

CLO stress testing
The task force heard an update from the director of the SVO's Structured Securities Group related to the SSG's concerns about insurers' investments in leveraged loans, which are defined as loans made to below investment grade companies, which are often re-packaged into structured pools known as collateralized loan obligations. The SSG believes that during the next down cycle, these loans will perform substantially worse than in previous downturns.

Based on the additional research and recovery stress testing of approximately 85% of the CLO market, the SSG has concluded that there is not systemic risk to the insurance industry, but that there is concentrated risk by some companies in “combo notes.” The SVO has recommended to the Valuation of Securities Task Force that the task force no longer allow these loans in the form of combo notes to be filing exempt, under the premise that the ratings do not sufficiency capture the risk.

Restructuring Mechanisms

The Restructuring Mechanisms Working Group had a full agenda at the Fall National Meeting.

Restructuring white paper
The working group discussed the next steps for drafting its white paper summarizing current restructuring mechanisms. Previous papers were written in 1997 and 2010 which the group thinks should be a good starting point; however, the focus of those papers was on troubled companies. The plan for the current white paper would be to focus on transactions by non-troubled companies.

Restructuring principles
The working group heard from industry groups on their principles for and positions on insurance business transfer (IBT) and corporate division transactions.

The American Council of Life Insurers recently finalized its principles for these two types of transactions and presented them in Austin. These principles include 1) policyholder access to the process, 2) robust regulatory review, 3) independent expert review, 4) court approval for IBT transactions (but not corporate division transactions), and 5) protection of the guaranty association system. ACLI noted they would oppose any legislation that did not include the outlined principles. Several regulators pushed back on the requirement to have an independent expert review for all transactions, particularly those where the insurance department has a good understanding of the business. The American Property Casualty Insurance Association presented similar restructuring principles.

The National Conference of Insurance Guaranty Funds shared its position that guaranty fund coverage should remain consistent before and after a transaction. NCIGF noted that most current state P&C guaranty fund laws do not ensure that would be the case and suggested a nationwide amendment to the guaranty fund act.

Restructuring Mechanisms Subgroup
The subgroup is currently focused on developing best practices for assessing the approval of proposed restructuring transactions by state insurance departments. In addition to hearing presentations from parties with experience with executing transactions, the subgroup conducted a survey of states to understand how they review restructuring transactions. A call will be held in January to discuss the results of the survey, which will be considered when developing the best practices document.

Prudential Rothesay decision
The working group discussed the recent decision in the UK to block a Part VII transfer of annuities from Prudential to Rothesay Life. The basis of the decision by the High Court noted that Rothsay, a new entrant into the market, did not have the same history and resources as Prudential, the original insurer. Therefore, the court ruled that the transaction was not in the best interest of the policyholders. The decision was reached in spite of the fact that an independent expert concluded that the transfer would have no material adverse effect on policyholders.

Segregated accounts/protected cells
NAIC staff gave a report to the working group about concerns regarding the use of segregated accounts/protected cells for restructuring transactions. Specifically, he noted there could be ambiguity at the state level as to whether insolvent segregated accounts/protected cells would receive guaranty fund coverage without an amendment to the Life and Health Insurance Guaranty Association Model Act to specifically address those situations.

International Insurance Relations Committee

During its annual meeting in November, the International Association of Insurance Supervisors adopted its revised Insurance Core Principles and Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame), adopted the Holistic Framework, and reached an agreement with U.S. regulators on key elements of the Insurance Capital Standard V.2.

Comframe
Following the adoption of ComFrame by the IAIS, the NAIC’s Conframe Development and Analysis Working Group was dissolved and the responsibility of implementation of ComFrame has been assigned to the Group Solvency Issues Working Group. The working group is now tasked with making

recommendations as to how ComFrame will be implemented in the United States. At the Fall National Meeting the GSI Working Group noted they would first compare ComFrame to existing regulatory practices to determine if its guidelines are currently being addressed and where there might be gaps. Interested parties commented that if gaps are identified, there needs to be a critical assessment of whether additional guidance is actually necessary. The working group committed to continue seeking input from interested parties throughout the assessment process.

Holistic Framework

Implementation of the Holistic Framework will begin in 2020; the Framework was developed in collaboration with the Financial Stability Board to provide guidelines for the assessment and mitigation of systemic risk. The IAIS will provide annual updates to the FSB on the results of its global monitoring exercise including an assessment of the systemic risks. Following the adoption, the FSB has suspended the identification of Global Systemically Important Insurers (G-SII) and will reassess the need to re-establish the designation in 2022.

Insurance Capital Standard

During the November IAIS meeting, Team USA reached an agreement on a path forward for the Insurance Capital Standard, which came only after significant changes were made in support of Team USA's objectives. Specifically, support came as agreement was reached on:

- definition of comparable outcomes: "comparable outcomes to the ICS means that the Aggregation Method (AM) would produce similar, but not necessarily identical, results over time that trigger supervisory action on group capital adequacy grounds,"

- creation of timelines and governance for operationalizing the monitoring period and clarification that the AM is one part of a comprehensive regulatory framework, and

- an agreement to conduct an economic impact assessment of the ICS.

Financial Sector Assessment Program

An update was provided on the International Monetary Fund's FSAP assessment of the U.S. financial services regulatory framework at the Fall National Meeting; the last FSAP of the U.S. was done in 2015. For the current assessment, most of the IMF's work was completed in 2019. The IMF is expected to publish "technical notes" in the summer of 2020, after which the NAIC will provide comments.

Big data

Claims settlement and fraud detection

At the Fall National meeting, the Big Data Working Group continued its discussions related to the use of big data in fraud detection and claim settlement and whether regulators' authority is sufficient. The chair of working group stated that he would like the group to "delve deeper into the specific data elements used in fraud detection and claim settlement models beyond the traditional data collected during a claim investigation." Concerns were also discussed about the use of non-insurance data from third party vendors and a consumer's ability to correct inaccurate data.

Predictive models

Property/casualty underwriting – The Casualty Actuarial Statistical Task Force exposed its third draft of the white paper for comment during the fall. Comments on the latest draft included 1) suggestion that field testing be performed prior to finalization, 2) the importance of confidentiality of the information being provided with the rate filings, 3) concerns about the prescriptive nature of the white paper when the intention is to provide best practices and not regulation, and 4) provide more guidance to assist with the identification of unfair discrimination. No update was provided on the timeline for finalizing the white paper; however, the ad hoc drafting group believes it is "getting close" to a final paper for consideration by the task force.

Life underwriting – The newly created Accelerated Underwriting Working Group is developing a workplan to complete its charge to consider the use of external data and data analytics in accelerated life underwriting. In Austin the working group heard a presentation from an academic at the University of Texas on accelerated underwriting in life insurance.

Climate risk

As states seek to strengthen their resilience to natural disasters in response to increasingly severe events, they often reach out to their state insurance departments for information. To facilitate assistance, the Climate Risk and Resilience Working Group approved a project to draft an Insurance Regulatory Frequently Asked Questions document with common questions, which allows each state to complete responses with its own information. Work on the FAQ will begin in 2020.

During the Fall National Meeting, the working group discussed the results of the annual NAIC Climate Risk Disclosure Survey. In 2019, 1,257 insurers responded to the survey, which represents about 70% of the U.S. market. Beginning with the 2019 survey, insurers were asked to refer to the Financial Stability Board's Task Force for Climate-Related Financial Disclosures (TCFD) survey guidelines and were permitted to submit their TCFD survey in lieu of the NAIC's survey. Over 75% of companies reported that they have a process for identifying climate change related risks; 45% of companies have a climate change policy. The Climate Risk Survey and related information are on the [California Insurance Department Website](#).

Terrorism Risk Insurance Act

The Terrorism Insurance Implementation Working Group provided an update on TRIA (for which the current reauthorization expires December 31, 2020). A seven-year TRIA reauthorization bill passed both the House and the Senate with bipartisan support and was attached to a spending bill that was signed by the President on December 20, 2019.

Mortgage guaranty insurance capital model

After almost two years with little public discussion of a capital model for mortgage guaranty insurance, the Mortgage Guaranty Insurance Working Group met at the Fall National Meeting to expose until January 24 the following: 1) a revised Model Act (#630) and Mortgage Guaranty Insurance Standards Manual, 2) a significantly revised mortgage guaranty capital model (referred to as SRMICS) and 3) related blanks proposals. Significant revisions include the following:

- replacement of the previously proposed risk-based capital standards with a new risk-sensitive State Regulatory Mortgage Insurer Capital Standard (SRMICS), with a stated goal to be a counter-cyclical model similar to RBC;
- updates to reinsurance requirements to make them more compatible with the Credit for Reinsurance Model Act;
- clarification of dividend restrictions to make them more enforceable; and
- movement of the mortgage guaranty quality control standards from the Model Act to the Standards Manual.

The revised draft Model Act currently includes a 25:1 risk to capital standard. Industry representatives commented that in light of the proposed new capital model and revised Model Act they feel there is no longer a need for the risk to capital standard as well as the requirement to establish a contingency reserve.

The proposed annual statement changes would require an annual Mortgage Guaranty Insurance Exhibit beginning year-end 2020, which includes disclosure of a five-year summary of trends, an aging of default inventory, risk and loss distribution by state, original loan-to-value on current unpaid loan balances by state and other detailed information.

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The next National Meeting of the NAIC will be held in Phoenix, Arizona on March 21-24. We welcome your comments regarding issues raised in this newsletter. Please provide your comments or mail address changes to your PwC LLP engagement team, or directly to the NAIC Meeting Notes editor at jean.connolly@pwc.com.

Appendix A

This table summarizes actions taken by the SAP Working Group since the PwC NAIC 2019 Summer National Meeting Newsletter on all open agenda items. Items exposed for comment are due January 31, 2020. For full proposals exposed and other documents, see the SAP Working Group webpage.

Issue/ Reference #	Status	Action Taken/Discussion	Proposed Effective Date
ASU 2016-13 - Credit Losses (#2016-20)	Discussion deferred	NAIC staff reported that in October the FASB unanimously voted to extend the effective date of ASU 2016-13 until 2023 for all entities except large SEC filers; the regulators may resume consideration of the statutory other-than-temporary impairment methodology for available for sale bonds in 2020.	TBD
SSAP 41 – Surplus Note Amortization and Accretion (#2017-12)	Discussion deferred	The working group plans to work with industry to resolve issues and propose related accounting for surplus notes issued at a discount. There has been no public discussion of this topic in 2019.	TBD
SSAP 61R – Reinsurance Risk Transfer for Short Duration Contracts (#2017-28)	Adopted and re-exposed	The working group adopted certain additional disclosures revisions to SSAP 61R recommended by the Informal Life and Health Reinsurance Drafting Group and re-exposed other proposed guidance. See additional discussion in the SAPWG summary.	New disclosures are effective year-end 2020
SSAP 86 – ASU 2017-12, Derivatives and Hedging (#2017-33)	Discussion deferred	This project will review the overall accounting and reporting changes required by this ASU as potential substantive revisions to SSAP 86. There was no discussion of this standard at the Fall National Meeting.	TBD
SSAP 41R – Surplus Notes Linked to Other Structures (#2018-07)	Data call information due December 31	At the Summer National Meeting, the working group agreed to sponsor a data call to obtain additional information on surplus notes with "associated assets," such as situations in which the two instruments negate or reduce cash flow exchanges, and/or when amounts payable under the surplus note and amounts receivable under other agreements are contractually linked, e.g. the asset provides interest payments when the surplus note provides interest payments. The working group will resume discussions after the results of the data call are reviewed.	TBD
SSAP 97 – SCA Loss Tracking/ Negative equity of SCAs (#2018-26)	Re-exposed	The working group again re-exposed proposed revisions to SSAP 5 to clarify under which circumstances an SCA should be reported at negative equity when the insurance company parent has guaranteed obligations of the SCA or provided commitments.	March 2020
SSAP 55 – Prepaid Providers (#2018-38)	Re-exposed	The regulators re-exposed proposed changes to SSAP 55 to strengthen the existing guidance on nonadmitting prepaid assets for payments made to third parties; the newly proposed changes are a result of comments from interest parties to provide specific guidance for life, p/c and health entities.	TBD

Appendix A

Investment Classification Project – Preferred Stock (#2019-04)	Re-exposed a draft Issue Paper and exposed draft SSAP	The working group re-exposed its draft Issue Paper on preferred stock guidance to update guidance on accounting and valuation, dividends, impairments, and interactions with SSAPs 48 and 97 to reflect many of the comments from interested parties. However, SAPWG is proposing to maintain consistency between the U.S. GAAP and SAP definitions of redeemable and perpetual preferred stock.	TBD
SSAP 52 – Reporting Deposit-Type Contracts (#2019-08)	Request for feedback and Blanks Working Group referral	The SAP Working Group has received explanations from industry as to why some guaranteed investment contracts and other deposit-type contracts are reported in Exhibit 5 –Aggregate Reserves for Life Contracts or Exhibit 6 –Aggregate Reserves for Accident and Health Contracts, as opposed to Exhibit 7–Deposit-Type Contracts. In response the working group has asked for feedback related to a new footnote to Exhibits 5 and 6 to disclose cases when mortality risk is no longer present due to a policy-holder electing a payout benefit. The working group also recommends a concurrent Blanks Working Group exposure.	TBD
SSAPs 68 & 97 – ASU 2014-17, Pushdown Accounting (#2019-12)	Re-exposed	The working group is now considering one of three options related to goodwill that has been pushed down. See discussion at the SAPWG summary above for additional detail.	TBD
SSAP 68 & 97 – Attribution of Goodwill (#2019-14)	Re-exposed	The working group re-exposed without any revisions to the August 3 version of proposed new SSAP 97 disclosures when look-through accounting is elected by an insurer. See the SAPWG summary for additional discussion.	TBD
SSAP 86 – Other Derivatives (#2019-18)	Adopted	Earlier in 2019, the SAP Working Group adopted guidance that structured notes for which contractual principal amounts are at risk for reasons other than failure of the borrower to repay should be classified and accounted for as derivatives under SSAP 86 and valued at fair value, effective December 31, 2019. At its meeting in Austin, the regulators adopted guidance that these "other" derivatives, if not used in hedging, income generation or replication transactions, are classified as non-admitted assets.	December 7, 2019
Investment Risk Interrogatories – (#2019-19)	Adopted	The regulators adopted a proposal to require look-through to the underlying investments in non-diversified equity funds for purposes of disclosing the "10 largest equity interests" (line 13 of the Investment Risk Interrogatories). SVO-identified ETF funds and money market mutual funds would be excluded.	Year-end 2020
SSAP 2 – Rolling Short-Term Investments (#2019-20) and (#2019-42)	Re-exposed	The regulators re-exposed this issue for comment, which "incorporates additional principle concepts" in classifying investments as cash equivalents or short-term investments. See additional discussion in the SAPWG summary on page 3.	TBD
SSAP 43R – CFOs and Equity Instruments (#2019-21)	Discussed deferred until January 8, 2020	At the Summer National Meeting, the working group voted to expose for comment proposed revisions to exclude "collateralized fund obligations" from the scope of SSAP 43R and would also exclude securitizations of assets that were previously reported as standalone assets by an insurer. See additional discussion in the SAPWG summary above.	TBD

SSAP 103R – Wash Sale Disclosure (#2019-22)	Adopted	The working group adopted proposed changes to clarify that only investments which are purchased or sold prior to a reporting period end and subsequently sold or repurchased after that reporting date would be subject to the wash sale disclosures.	Year-end 2019
SSAP 97 – Going Concern (#2019-23)	Adopted	The working group clarified that SSAP 97 and SSAP 48 investees for which either the audit opinion or financial statements or footnotes disclose substantial doubt as to the ability of the entity to continue as a going concern shall be nonadmitted.	December 7, 2019
SSAP 71 – Commission Financing (#2019-24)	Re-exposed	During the Summer National Meeting, the working group exposed for comment a proposal to prevent insurers from deferring the recognition of commission expense using "financing transactions." See the SAPWG summary for additional discussion.	TBD
SSAP 105 – Working Capital Finance Investments (#2019-25)	Exposed	The working group voted to expose for comment substantive revisions to SSAP 105 to incorporate industry proposed language, which would relax some of the strict requirements to allow additional insurers to make investments in working capital finance notes. An issue paper will be drafted by NAIC staff for consideration at the 2020 Spring National Meeting.	TBD
Appendix A-785 – Updates for Covered Agreements (2019-26)	Adopted	The regulators adopted proposed revisions to Appendix A-785 in the APP Manual to reflect the changes adopted by Reinsurance Task Force to implement the Covered Agreements with the EU and the UK.	Revisions are effective as states adopt the changes to the Credit for Reinsurance Models
Editorial Updates (#2019-27EP)	Adopted	The working group adopted minor changes to three SSAPs to update cross references and increase readability.	December 7, 2019
SSAP 97 – Look-Through with Multiple Holding Companies (#2019-32)	Exposed	This agenda item, a follow-up to issue #2019-13, clarifies that look-through of more than one holding company is permitted when each of the holding companies within the structure complies with SSAP 97, e.g. is a par. 8.b.iii entity, does not own other assets that are material and is not subject to material liabilities.	TBD
SSAP 25 – Disclosures (#2019-33)	Exposed	The working group exposed for comment a proposal to restructure SSAP 25 footnote disclosures so the information can be data captured and analyzed. Transactions with affiliates disclosed in Schedule Y, Part 2 would not need to be duplicated in the data captured footnotes.	Year-end 2020 financial statements
SSAP 25 – Related Parties, Disclaimers of Affiliation and Variable Interest Entities (#2019-34)	Exposed	The regulators exposed for comment proposed changes to SSAP 25 to clarify that a non-controlling ownership interest greater than 10% meets the definition of a related party and is subject to the related party disclosures as such. This is being proposed to ensure that any related party identified under U.S. GAAP or SEC requirements is also a related party for SAP. The SEC does not allow disclaimers of affiliation, unlike the Insurance Holding Company Model Act.	TBD

Appendix A

SSAP 51&52 – Update Withdrawal Disclosures (#2019-35)	Exposed	The working group proposed minor clarifying edits to the "liquidity" Notes 32 and 33 disclosures made by life insurers.	TBD
Various SSAPs – Expand MGA and TPA Disclosures (#2019-36)	Exposed	At the request of the Tennessee and Missouri Insurance Departments, the regulators exposed for comment a proposal to significantly expand disclosures related to MGAs and TPAs, which the sponsors believe will "help in the assessment of ERM, ORSA, market analysis reviews, operational risks, group analysis, and recovery and resolution considerations."	TBD
SSAP 41 – Surplus Notes – Enhanced Disclosures (#2019-37)	Exposed	The working group exposed for comment new disclosures for issued surplus notes for which "anticipated or typical cash flows are partially or fully offset by the terms of a linked asset issued by the surplus noteholder."	TBD
SSAP 86 – Revised Financing Derivatives (#2019-38)	Exposed	The regulators reopened the issue of derivatives with financed premiums, which resulted in new disclosures in statutory financial statements in 2017. The working group exposed for comment an extensive proposal that includes the guidance that the book adjusted carrying value and fair value of these derivatives "shall reflect the value without inclusion of any impact from financing provisions."	TBD
SSAP 86 – Acceptable Collateral for Derivatives (#2019-39)	Exposed	The SAP Working Group exposed revisions to SSAP 86 to clarify that the fair value of collateral received or held for derivative disclosure purposes shall be reported net of collateral paid/pledged if a counterparty has the legal right to offset. NAIC staff believes the intent of the reference to "net positive variation margin" in Schedule DB-D, section 1, column 4 is meant to reflect net realizable margin.	TBD
SSAP 53 – Reporting of Installment Fees and Expenses (#2019-40)	Exposed	To address the issue of the installment fee exception being interpreted more broadly by some companies, which allows immediate revenue recognition for certain instalment fees, the SAP Working Group exposed guidance to recommend additional language be added to SSAP 53 to ensure that the installment fee guidance continues to be narrowly applied. The exposure also asks for comments on the classification of installment fee expenses.	TBD
SSAP 43R – Financial Modeling (#2019-41)	Exposed	Revisions to SSAP 43R were exposed which would eliminate the multi-step financial modeling designation guidance in determining final NAIC designations for RMBS and CMBS securities. See additional discussion of this issue in the VOS Task Force summary above.	TBD
SSAP 2 – Cash and Liquidity Pools (#2019-42)	Exposed	Revisions specify that cash pooling structures that meet specified criteria qualify as cash equivalents. See additional discussion in the SAPWG summary above.	TBD
Editorial Updates (#2019-44)	Adopted	Minor revisions were exposed to correct cross references and formatting, including those related to combining the life and fraternal statements. The changes are exposed until December 20 in order to have the corrections included in the 2020 APP Manual.	December 31, 2019

Appendix A

SSAP 51 – VM-21 Grading (#2019-47)	Exposed	Revisions to SSAP 51 are necessary to reflect that VM-21 allows the required changes to VA reserves to be phased in over three years. See further discussion on page 4 above.	January 1, 2020
SSAP 62R – Reciprocal Jurisdiction Reinsurers – (#2019-48)	Exposed	A reference to reinsurers domiciled in reciprocal jurisdictions is proposed to be added to paragraph 106 on disclosures related to unsecured reinsurance recoverables.	TBD
SSAP 62R – Retroactive Reinsurance Exception (#2019-49)	Exposed	The regulators have been asked to address inconsistencies in application of the retroactive reinsurance accounting and reporting guidance, especially with respect to the Schedule P reporting. The working group asked for comments on the preferred approaches for reporting retroactive contracts that meet the exception for prospective accounting, including any disadvantages to current approaches being used. The working group asked for industry and state insurance regulator volunteers and input from the Casualty Actuarial Task Force.	TBD
Issue Paper 99 – Proposals to reject recent GAAP guidance	Adopted	The working group adopted rejection of the following GAAP guidance as not applicable to statutory accounting: ASU 2019-05, Targeted Transition Relief (#2019-28), ASU 2019-06, Extending the Private Company Accounting Alternatives on Goodwill and Certain Identifiable Intangible Assets to Not-for-Profit Entities (#2019-29), ASU 2019-03, Updating the Definition of Collections (#2019-30), and ASU 2018-08, Clarifying the Scope and the Accounting Guidance for Contributions Received and Contributions Made (#2019-31).	December 7, 2019
Issue Paper 99 – Proposals to reject recent GAAP guidance	Exposed	The working group exposed for comment proposed rejection of the following GAAP guidance as not applicable to statutory accounting: ASU 2017-11, Earning Per Share, Distinguishing Liabilities from Equity, Derivatives & Hedging, ASU 2013-11, Income Taxes – Presentation of Unrecognized Tax Benefit, ASU 2016-14, Presentation of Financial Statements for Not-for-Profit Entities	March 2020

Appendix B

This chart summarizes action on other proposals of the RBC Working Groups since the 2019 Summer National Meeting, i.e. those not discussed on pages 4-6 of this Newsletter. The detail of all proposals adopted for 2019 RBC are posted to the Capital Adequacy Task Force's webpage (under Related Documents).

RBC Formula	Action taken/discussion	Effective Date/ Proposed Effective Date
All/multiple formulas		
Risk-Based Capital Preamble (2019-07-CA)	The Capital Adequacy Task Force **adopted** the RBC Preamble, which formally documents the background, purpose, history, objectives and critical concepts of risk-based capital. During the discussion of this document, the task force reiterated the guidance that "there are no state permitted practices to modify the RBC formula and all insurers are required to abide by the RBC instructions." The chair commented that he had been told that some states have been allowing permitted practices.	2019 RBC Filings
P/C RBC	Action taken/discussion	Effective Date/ Proposed Effective Date
Lloyd's of London Instruction Clarification (2019-11-P)	The P/C RBC Working Group **adopted** guidance to clarify that reinsurance recoverables from individual syndicates of Lloyd's of London that are covered under the Lloyd's Central Fund may use the lowest financial strength group rating received from an approved rating agency, as opposed to being classified as unrated.	2019 RBC Filings
Remove PR035 adjustment for reinsurance penalty (2019-12-P)	The P/C RBC Working Group **adopted** a proposal to remove the reinsurance penalty for affiliates calculation since the RBC charge for reinsurance recoverable has been moved to Schedule F, Part 3.	2020 RBC Filings
2019 U.S. and non-U.S. catastrophe event list	The Catastrophe Risk Subgroup **adopted** the 2019 lists used to report catastrophe data on PR037 and PR100+.	2019 RBC Filings
Eliminate separate credit risk charge for unrated authorized reinsurers (2019-19-P)	The P/C RBC Working Group **exposed** for comment a proposal to eliminate the separate 10% RBC charge for unrated authorized reinsurers and use the 14% charge for uncollateralized reinsurance recoverables from all unrated reinsurers (authorized, unauthorized, certified and reciprocal).	2020 RBC Filings

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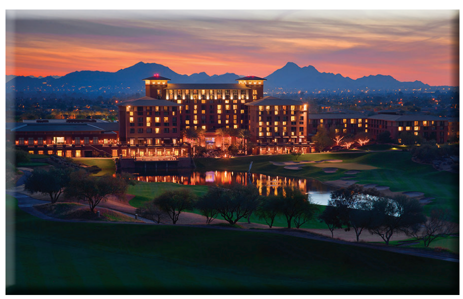

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