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Small Talk

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sdhaglund@fedins.com

Ryan Stowe, FSA, MAAA
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SOA Staff

David Schraub, FSA, CERA, MAAA, Staff Partner
dschraub@soa.org

Jessica Boyke, Section Specialist
jboyke@soa.org

Julia Anderson Bauer, Publications Manager
jandersonbauer@soa.org

Julissa Sweeney, Graphic Designer
jsweeney@soa.org

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475 N. Martingale Road, Suite 600
Schaumburg, Ill 60173-2226
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www.soa.org

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Letter from the Editor

By Ryan Stowe

Welcome to the March 2017 issue of *Small Talk*, the Smaller Insurance Company Section (SmallCo) newsletter. I encourage you to set aside time to read through these articles.

The Chairperson's Corner highlights important events for 2017, including Society of Actuaries (SOA) meeting dates and SmallCo-sponsored webinars. Also, our incoming section chair, Bryan Amburn, shares his vision for SmallCo in 2017.

Marianne Purushotham and Mark Birdsall bring you Part 2 of their article featured in the September 2016 issue of *Small Talk* pertaining to company profitability and risk dashboards. The focus of this article is related to risk management in the realm of assumption-setting for actuarial projection purposes.

Karen Rudolph provides a regulatory update from the National Association of Insurance Commissioners (NAIC) 2016 Fall National Meeting. Topics discussed at the meeting included the companywide exemption; the 2017 CSO and net premium reserves; mortality tables specific to guaranteed issue, simplified issue and pre-need risks; the NAIC PBR survey and pilot study; the LATF Valuation Review Drafting Group; VM-22 developments; and the 2017 Generally Recognized Expense Tables (GRET).

Robert Beal explains what you need to know about the 2013 Individual DI Valuation Table. This table was approved by the NAIC in August 2016 and is now official. Implementation of the



table will not necessarily be easy, given the complexities associated with it. Read his article to find out more.

Jonathan Pollio provides an overview of the 2016 SOA Annual Meeting & Exhibit from his perspective, in case you were unable to attend.

Our last article is also related to the annual meeting. Jenna Fariss provides a summary of a session she spoke about at the meeting related to how small companies can outperform.

As you read through this issue, be sure to think about how you can use these articles to develop your technical and soft business skills. Take this advice from Dr. Seuss, "The more that you read, the more things you will know. The more that you learn, the more places you'll go." Good luck on your professional journey, wherever it may take you. ■



Ryan Stowe, FSA, MAAA, is an actuary on the Individual Markets team at Great West Financial in Greenwood Village, Colo. He can be reached at ryan.stowe@greatwest.com.

Chairperson's Corner

By Bryan Amburn

Around this time every year, small company actuaries are on the tail of the year-end crunch and hope to wrap up all of the opinions, filings and certifications that have been occupying our time for the past quarter (or more!). Yet it doesn't feel like 2017 will be a typical "settling into work" year that we might have become accustomed to in the past. With the Valuation Manual going into effect and a new 2017 CSO table having become available, this is a transition year, and there is still a lot of uncertainty around how these will affect small companies. In addition, if you add the small company impacts of the Department of Labor (DOL) ruling, the continued low interest rate environment, and increased attention from regulators on governance, the demands on small company actuaries are increasing at a rate faster than the resources are becoming available.

It is for these reasons that I am truly thankful for the work of the Smaller Insurance Company Section (SmallCo) Council and friends. When I was recruited to the section a little more than three years ago, I didn't know what I was getting into, but I found a network of fellow actuaries with similar issues and concerns and a wide variety of backgrounds and practical experience all working toward the same goals. The resources provided by SmallCo have been invaluable in my continued progression and education as a small company actuary in these rapidly changing times. As such, I am excited to take the reins from Ryan Stowe, to whom I am grateful for his leadership and example, and I am looking forward to what SmallCo has planned for this year.

CONTINUING EDUCATION

As has come to be expected, SmallCo will continue to sponsor sessions throughout the year at various Society of Actuaries (SOA) meetings. If you plan to attend any of the following events in 2017, I invite you to check out the SmallCo sessions offered.

Life & Annuity Symposium
May 8–9 in Seattle

Valuation Actuary Symposium
Aug. 28–29 in San Antonio

SOA Annual Meeting & Exhibit
Oct. 15–18 in Boston

As a supplementary option to the in-person meetings, SmallCo will be sponsoring five webinars this year covering:

- Practical modeling considerations for PBR
- Professionalism and new ASOPs
- Margin setting for CFT, PBR and pricing
- VM31
- Year-end financial reporting issues

Something new that SmallCo is also looking to introduce this year are town hall meetings, which will allow SmallCo actuaries to address issues specific to them.

KEEPING AN EAR TO INDUSTRY DEVELOPMENTS

In addition to all of the continuing education efforts, SmallCo has established teams to keep section members apprised of important topics throughout 2017:

- Regulatory change
- Research
- Product
- Interest rate
- Member value

I am especially looking forward to the contributions of the Member Value team, as, while I think SmallCo has done great things and been a very helpful resource for its membership, we can do even better. And that leads me to my last thoughts.

A CALL TO ACTION FOR 2017

SmallCo is blessed with involved membership and active volunteers. I am grateful to the new council members, the former council members who have stayed on as friends of the council, and for new friends of the council. Thank you for your support; I am going to be relying on you a lot this year. The needs of small company actuaries are as great as ever, and I would encourage everyone to reach out to fellow actuaries and invite them to give SmallCo a look to see how we can support them, and to share what they can do to support their fellow actuaries. 2017 will bring a lot of challenges, but together we can meet them and have a great year! ■



Bryan Amburn, FSA, MAA, is the chief life actuary at Farm Bureau Insurance Company of Michigan. He can be reached at bamburn@fbinsmi.com.

Company Profitability and Risk Dashboards— A Tool in the Understanding and Management of Risk, Part 2

By Marianne Purushotham and Mark Birdsall

This is the second article in a two-part series examining the potential value to both small and large companies of implementing a company profitability and risk dashboard. The dashboard concept involves regular collection and updates of key metrics defined by the company for its particular markets, products and distribution channels. The key metrics are disseminated through a data visualization tool that can be accessed across the organization.

In recent years, state regulators and rating agencies have increasingly looked for companies to demonstrate that they understand, quantify and effectively manage the risks that they accept.

For many companies, two of the key process risks they must manage are:

1. Company distribution and the resulting quality of new business written through these channels and
2. Assumption-setting for pricing, repricing, reserve and capital calculations, including asset adequacy analysis and the new principle-based reserving (PBR) requirements.

The Part 1 article in the September 2016 issue of *Small Talk* discussed identifying and managing risks connected with distribution and the quality of new business being written. This included examples of key metrics including actual-to-expected results for key risk factors by agent, agency, region or independent marking organization (IMO). Variations from the business plan production targets including the impact of product mix were also illustrated in the Part 1 article sample dashboard.

This article will focus on risk management in the realm of assumption-setting for actuarial projection purposes by examining suggested best practices and key metrics to include in a risk and profitability dashboard in the following areas:

SETTING CENTRAL ESTIMATE ASSUMPTIONS

- Identifying key risks
- Measuring historical results for key risks
- Developing dynamic functions for key risks
- Quantifying and ranking risk margins
- Measuring assumption objectivity

MONITORING ADEQUACY OF RESERVES AND CAPITAL

- Testing reserve adequacy
- Measuring company value changes
- Measuring target capital changes

SETTING CENTRAL ESTIMATE ASSUMPTIONS

For the purposes of this article, “central estimate assumptions” refers to assumptions that combine company and industry experience to develop baseline assumptions for modeling key risks in cash-flow projection models.

Identifying Key Risks

As noted in the Part 1 article, targeted sensitivity testing utilizing existing pricing models and asset adequacy analysis models helps identify the key risks in a block of business. The company may want to select and document a set of objective criteria for identifying key risks through sensitivity-testing results.

To the extent that the sensitivity tests represent the actuary’s best estimates of moderately adverse deviations from the key risk assumptions, these results also provide a basis for testing the adequacy of the reported reserves. (This reserve adequacy testing will be discussed in more detail later in this article.)

Measuring Historical Results for Key Risks

It is important that the company align its experience studies with the identified key risks for a product or product group. This process of aligning experience studies with specific material assumptions and calculating actual-to-expected ratios for those key assumptions helps set the stage for understanding company experience, including the identification of trends in experience.

Relevant industry experience should also be considered, either formally or informally, in setting central estimate assumptions for key risks. In this context, “relevant” means that the industry experience is directly applicable to the company experience with respect to factors related to the underlying business, including underwriting methods, product designs, distribution channels and target markets. Aggregate industry experience representing industry averages should be used with care, recognizing that

there is a distribution of experience around the average that is likely correlated with factors including those just listed.

If industry experience is not relevant or directly applicable to company experience, it is important that professional actuarial judgment be applied in making adjustments to the industry experience. In a PBR and Actuarial Standard of Practice (ASOP) 41 world, the rationale for those adjustments should be documented in the actuarial report related to the specific project.

LIMRA, MIB and other data aggregators have been working on the development of enhanced experience studies that identify additional predictors of experience, including product design elements, specific agent or distribution channels, demographic variables, and projected in-the-moneyness of a benefit. These enhanced experience studies can serve as the basis for identifying relevant industry experience.

With respect to formally including relevant industry experience in the assumption-setting process, VM-20 provides a road map for a credibility-blending process specific to the mortality assumption. Please note that this credibility-blending process can be applied to other key assumptions as well. While VM-20 applies to setting modeling assumptions for the PBR Deterministic and Stochastic Reserve calculations, this credibility-blending process is a sound methodology for developing central estimate assumptions for other risk analysis purposes, including pricing.

Per VM-20, there are two basic methods for calculating credibility: the Limited Fluctuation method and the Bühlmann method. Using the Bühlmann method requires the company to have access to industry-level information, which the data aggregators and/or reinsurers could help provide. The Society of Actuaries (SOA) provided a research paper showing sample results of lapse and mortality results using the Limited Fluctuation and

Bühlmann methods.¹ In our observation, the Bühlmann method often provides a higher credibility measure than the Limited Fluctuation method.

Developing Dynamic Functions for Key Risks

Having set the central estimate assumptions for the key risks, we can now turn to developing dynamic functions that will provide more consistent measures of the interactions of the key risks as the cash-flow projections unfold year by year. As noted before, industry data aggregators are increasingly using predictive modeling methods to identify the significant predictors of experience for key risks beyond the traditional predictors used in the past.

In industry-level predictive modeling analysis, one of the key predictors often turns out to be the “company code,” the code used by a data aggregator to identify different companies contributing data. The company code is often the data aggregator’s only indicator of additional predictive factors specific to a particular company profile, including differences in the products, producers and policyholders.

With this specific, additional data each company possesses, the companies themselves could employ results of the enhanced industry studies both as a road map and as a starting point for developing enhanced company experience studies. For example, development of dynamic policyholder functions at the industry level is currently in progress for term life insurance mortality and lapse rates.² These industry results could be applied at the company level by adding the specific company information regarding product design, underwriting practices, producers, policyholders and other company-specific factors to identify additional predictors that were embedded in the company code.

Based on these enhanced company studies, dynamic functions using the key predictors could be developed and incorporated into cash-flow projection models.

Quantifying and Ranking Risk Margins

With key risks identified and base central estimate assumptions selected, including application to appropriate dynamic functions, we now consider the development of margins on these assumptions, whether in aggregate or individually. The difference between margins on individual assumptions versus aggregate margins involves considering the covariance of the individual risk factors. In VM-20, there is a provision for adjusting the margins to reflect the covariance among the risk factors with individual margins. For simplicity of discussion, we will address only aggregate margins in this article, recognizing the link between margins on individual assumptions and aggregate margins.

One approach to developing aggregate margins is through the use of a multi-risk scenario generator. The SOA has funded a



It may be desirable to separately identify the impact of the dynamic policyholder behavior functions from the other impacts of the economic scenarios.

PBR Simplified Methods project that includes the development of such a multi-risk generator that would be freely available for use, similar to the SOA/AAA economic scenario generator that is incorporated as part of the new multi-risk scenario generator. This multi-risk scenario generator is available for testing through the SOA.

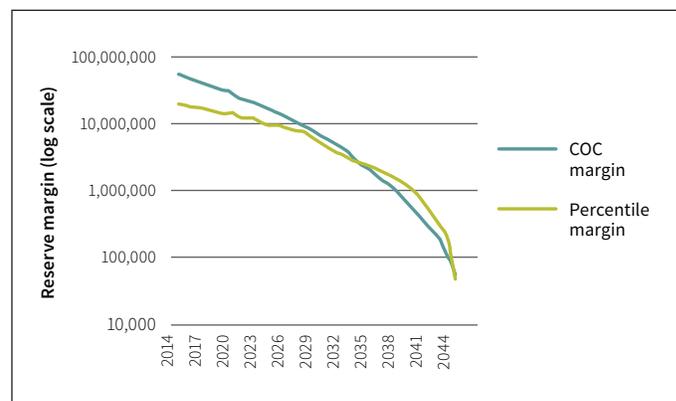
The multi-risk scenario generator will be based on a process of identifying the base central estimate assumptions for all key risks, the actual-to-expected ratios for these assumptions, the credibility of the experience with respect to the assumptions, and the distribution type for each key risk. With these inputs, the generator can create probability distributions for all key risks. With these distributions, the scenario generator can then provide scenarios for each key risk at a specified probability level, such as at the 85th percentile of the distribution (moderately adverse for margin analysis) or the 99th percentile (for target capital analysis). In addition, the generator can provide any number of stochastic scenarios for testing all key risks simultaneously in the calculation of company estimates of PBR and target capital.

With the multi-risk scenario generator as a new tool for measuring risk, aggregate margins for both reserves and capital can be calculated using either of two methodologies: the cost of capital (COC) method, which is common in international circles; or the percentile method, which may be more familiar to U.S. actuaries.

These two methods for calculating aggregate margins were described in a September 2015 *Small Talk* article introducing the Representative Scenarios method (RSM, with examples of margin calculations provided in the Part 2 article³). Reprinted from the Part 2 article, Figure 1 provides a graphical comparison of aggregate margins calculated using the two methods for individual level term insurance.

As stated in the Part 2 RSM article, “The main difference between these two margin methodologies is apparent from this graph. The COC margin tends to be larger when the business still has a long period to run. However, the COC margin is released faster, crosses over and becomes lower than the percentile margin.”⁴

Figure 1
Margins Over Time



Reprinted from “Representative Scenarios Method (RSM) Part 2: Field Testing the RSM,” by Mark Birdsall and Steve Strommen, *Small Talk*, March 2016, p. 16. Copyright © 2016 by Society of Actuaries. Reprinted by permission.

Note that as you aggregate several similar-risk product groups (e.g., level term insurance, accumulation universal life, traditional whole life), the aggregate margin for the aggregated block will likely be lower than the sum of the aggregate margins of the separate product groups. This reduction in aggregate margin is due to the impact of offsetting cash flows, called by some “product hedging” or “natural hedging.” It may be desirable to separately identify the impact of the dynamic policyholder behavior functions from the other impacts of the economic scenarios. Doing so does not change the numerical results, but it may increase understanding of the relative impact of the risks for ranking purposes.

Measuring Assumption Objectivity

In a principle-based environment, regulators, auditors and rating agencies, as well as non-actuarial company management and shareholders, need assurance that the assumptions used in calculating and testing reserves and capital are appropriate. Measures of assumption objectivity could be developed and used in communications with these important stakeholders.

Possible measures of assumption objectivity are being developed as part of the SOA’s PBR Simplified Methods project. For the purposes of this article, calculating actual-to-expected ratios for each material assumption provides a basis for developing one such measure of assumption objectivity. These actual-to-expected ratios can be used to sensitivity-test the key assumptions and provide a view of the cost of setting assumptions that vary from company experience, regardless of the statistical credibility of that experience. Weighting the actual-to-expected ratios of the key assumptions by the respective sensitivity test deviations and dividing by the sum of those deviations can serve

as an overall measure of the objectivity of the company portion of the central estimate assumptions for a block of business with similar risks. Similar analysis can be performed for different levels of aggregation of a company’s business.

Assumption Objectivity Score =

$$\frac{[(\text{Actual/Expected})_{\text{risk}(i)} \times (\text{sensitivity test impact of deviation from central estimate})_{\text{risk}(i)}]}{[\text{Sum over risks } i \text{ of the sensitivity test impact of deviation from the central assumption}]}$$

[Sum over risks i of the sensitivity test impact of deviation from the central assumption]

MONITORING ADEQUACY OF RESERVES AND CAPITAL

Figure 2 depicts an additional set of visualizations for the sample Company Profitability and Risk Dashboard introduced in the Part 1 dashboard article. Additional metrics include an Assumption Objectivity Score as well as measures of the impact of variations in actual-to-expected results and a ranking of key risks associated with the business as developed earlier.

The additional dashboard visualizations and metrics also include measures of reserve adequacy and company value as detailed later.

Sections of Figure 2 will be shown and discussed separately.

Figure 2
Visualizations for Sample Company Profitability and Risk Dashboard



Target Capital = Adjusted Total Asset Requirement - Statutory Reserve
Free Surplus = Statutory Total Adjusted Capital - Target Capital

Figure 3
Company Value in Terms of Embedded and Appraisal Value

Company Value					
Prior Period Company Value	In Force Value End of Period	Value of Future Production	Current Period Company Value	Company Value per Share (500K shares)	Stock Price
\$177,283,765.86	\$107,966,186.74	\$15,750,000.00	\$192,716,186.74	\$385.43	\$355.00

Figure 4
Components of the In-Force Value End of Period

Description	Current	CY-1	CY-2
In-Force Value Beginning of Period	\$107,033,766	\$105,844,207	\$110,000,000
PV Distributable Profits In-Force Business End of Period	\$104,000,000	\$103,000,000	\$108,000,000
PV Impact of A/E Variations	-\$1,465,000	\$305,000	-\$1,550,000
PV Impact of Assumption Changes	\$0	\$0	\$0
Adjusted PV Distributable Profits In-Force Business End of Period	\$102,535,000	\$103,305,000	\$106,450,000
Adjusted Value of New Business Written	\$5,431,187	\$3,728,766	-\$605,793
In-Force Value End of Period = 6 + 7	\$107,966,187	\$107,033,766	\$105,844,207

Figure 5
Comparing AMR Produced Using Multi-risk Scenario Generator to Approximate CTE 70 Reserve and SR



Figure 3 develops a measure of “Company Value” that roughly corresponds with concepts underlying embedded value and appraisal value, and this Company Value measure rolls forward from one period to the next. The components of this roll forward include the In-Force Value End of Period, the Value of Future Production, Target Capital and Free Surplus. Target Capital and Free Surplus are shown and discussed in Figure 7.

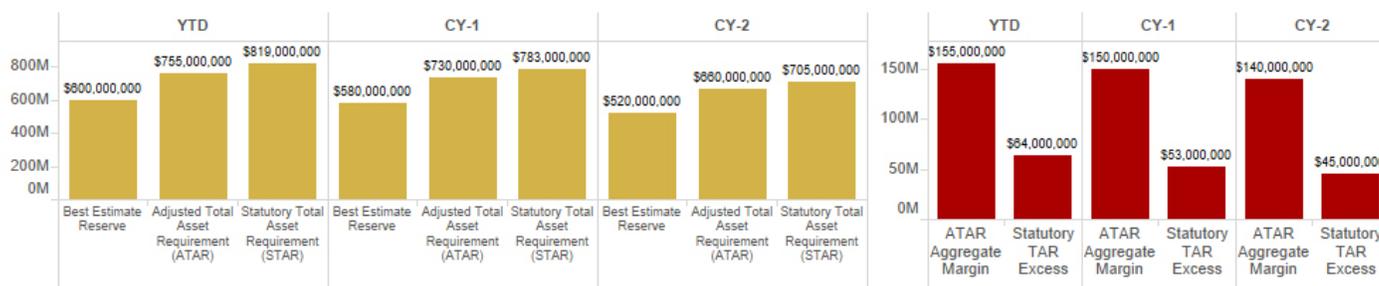
With the Current Period Company Value, an additional comparison can be made between Company Value per Share and the company’s current stock price, if applicable.

The components of the In-Force Value End of Period are displayed in Figure 4 and could be accessed as a “drill down”

element of the dashboard. The In-Force Value End of Period includes the Present Value of Distributable Profits for In-Force Business End of Period, the Present Value of the Impact of Actual to Expected Variations (see Figure 2 for a breakdown of these variations), the Present Value of Assumption Changes (zero in this sample dashboard; otherwise an additional line would be presented or the impact could be combined with the impact of Actual-to-Expected Variations), and the Adjusted Value of New Business Written (where adjustments have been made for the expected quality of the business written as well as the difference in actual-to-expected acquisition costs).

In Figure 5, the focus is on comparing the Adjusted Modeled Reserve (AMR) produced using the multi-risk scenario generator to approximate a CTE 70 reserve and the reported Statutory

Figure 6
Comparison Between CTE 90 ATAR Produced Using Multi-risk Scenario Generator and STAR



Reserve (SR). The AMR can be deconstructed into three components: (1) the “Best Estimate Reserve,” calculated using a single, deterministic level economic scenario and all the central estimate assumptions; plus (2) the “Reserve Aggregate Margin;” minus (3) the “AMR Product Hedging Benefit” resulting from the cash-flow offsets obtained by modeling multiple product types together. The AMR Aggregate Margin shown in Figure 5 represents (2) minus (3). The AMR is compared to the Best Estimate Reserve and the reported SR, while the AMR Aggregate Margin is compared to the Statutory Reserve Excess, which equals SR minus AMR. The Statutory Reserve Excess provides perspective on the degree of conservatism in the statutory reserves versus the more principle-based AMR. The AMR Aggregate Margin and the Statutory Reserve Excess are the two components of the margin between SR and the Best Estimate Reserve. If desired, the AMR Product Hedging Benefit could be shown as a negative number together with the Reserve Aggregate Margin calculated before adjustment for the AMR Product Hedging Benefit.

In Figure 6, a similar comparison is made between a CTE 90 Adjusted Total Asset Requirement (ATAR) produced using the multi-risk scenario generator and the reported Statutory Total Asset Requirement (STAR). STAR consists of SR plus the Interest Maintenance Reserve plus the Asset Valuation Reserve plus the Company Action Level Risk-Based Capital (RBC). Note that STAR represents a statutory minimum and the company’s actual assets available to meet its obligations will usually be far greater than this minimum.

As before, ATAR can be deconstructed into three components: (1) the Best Estimate Reserve; (2) the Capital Aggregate Margin; and (3) the ATAR Product Hedging Benefit. In Figure 6, the ATAR Aggregate Margin represents the Capital Aggregate Margin minus the ATAR Product Hedging Benefit. Note that the ATAR Aggregate Margin represents a margin beyond the Best Estimate Reserve and therefore is significantly larger than

the AMR Aggregate Margin, which is also based on the Best Estimate Reserve.

The Statutory Reserves Excess is the difference between STAR and ATAR and is a measure of the conservatism of the STAR as compared to the more principle-based ATAR. Based on this sample data, the level of conservatism in STAR is significantly smaller than the level of conservatism in SR. For this sample data, this result indicates that the additional asset requirement based on CTE 90 versus CTE 70 is larger than the additional capital required by the IMR, AVR and RBC. This is due in large part to CTE 90 being a target capital measure rather than a minimum capital measure (as represented by RBC). For this comparison, the company may want to use a rating agency capital measure or a multiple of RBC needed to support its desired ratings, instead of RBC.

In Figure 7, “Target Capital” is calculated as the difference between ATAR and SR. Based on the sample data, Target Capital is relatively small, indicating that SR covers a significant portion of the tail risk at a CTE 90 level. This principle-based analysis of Target Capital could serve as the basis for allocating capital for pricing and repricing products.

In Figure 7, Target Capital is compared with the statutory Total Adjusted Capital (TAC), and “Free Surplus” equals the excess of TAC above Target Capital. In addition to other capital ratios, Free Surplus provides a principle-based limit in the analysis supporting the payment of shareholder dividends. Alternatively, Free Surplus could be treated as a separate line of business for investment and management reporting purposes.

In the last visualization of Figure 7, the results of 99th percentile scenarios generated by the multi-risk scenario generator, adjusted for covariance, are used to rank the risks embedded in ATAR. A similar ranking of risks could be produced for AMR and the two sets of rankings compared.

Figure 7
Calculating Target Capital



CONCLUSION

This article addresses several issues related to developing an additional section of a sample Company Profitability and Risk Dashboard.

- Sensitivity testing can be used to identify key risks according to objective criteria and in-force business can be grouped into blocks with similar risk profiles.
- Setting central estimate assumptions that reflect both company experience and relevant industry experience is essential to producing meaningful risk analysis. To accomplish this task, enhanced experience studies at both the industry and company levels are needed to align those studies in support of the key risks that companies need to model.
- Dynamic policyholder behavior functions developed using predictive modeling tools can improve the consistency of the cash-flow models by adjusting assumptions based on not only the economic scenarios but interactions with other projection variables, such as in-the-moneyness of benefits.
- A multi-risk scenario generator can provide scenarios at desired probability levels as well as generate simultaneous stochastic scenarios for all key risks to help companies quantify and rank risks, evaluate the effectiveness of risk mitigation programs, measure statutory risk margins in reserves and capital, and calculate target capital for pricing purposes.
- Company value can be consistently measured over time, driving objective decision-making by management.

Not only do these analytical tools have the intrinsic value noted, but the actuary's ability to explain risks to management, shareholders and regulators, to optimize investment strategies, and to work with rating agencies on possible rating upgrades would be enhanced. With these enhanced analytical tools, any future

company transition to the principle-based approach (PBA—both reserves and capital) would become less bumpy as PBA requirements evolve over time to become more principle-based. A company might use these methods as PBR Simplified Methods instead of the full-blown PBR approach per provisions authorizing approximation methods, such as contained in VM-20 Section 2G. Lastly, principle-based measures calculated by companies could demonstrate the level of statutory conservatism in the current statutory requirements, providing a catalyst for improvements in regulatory requirements. ■



Marianne Purushotham, FSA, MAAA, is corporate vice president of the statistical analysis and modeling group at LIMRA. She can be reached at mpurushotham@limra.com.



Mark Birdsall, FSA, FCA, MAAA, MBA, is a vice president with Lewis & Ellis in Overland Park, Kansas. He can be reached at mbirdsall@lewisellis.com.

ENDNOTES

- 1 "Credibility Theory Practices Report," Society of Actuaries, December 2009. <https://www.soa.org/research/research-projects/life-insurance/research-credibility-theory-pract.aspx>.
- 2 Possible SOA project with MIB, RGA and Lewis & Ellis as researchers. With respect to guaranteed lifetime withdrawal benefits on variable annuities, see "Dynamic Assumption-Setting for Variable and Non-Variable Annuities," by the authors, *Financial Reporter*, September 2015.
- 3 "Representative Scenarios Method (RSM) Part 2: Field Testing the RSM," by Mark Birdsall and Steve Strommen, *Small Talk*, March 2016.
- 4 *Ibid.*, page 16.

Regulatory Update

By Karen Rudolph

The views expressed in this article are solely those of the author and do not necessarily reflect the views of Milliman or the Society of Actuaries, nor are they intended as methods of regulatory or tax compliance.

This article summarizes topics of interest from the National Association of Insurance Commissioners (NAIC) 2016 Fall National Meeting. The reader should refer to [www.NAIC.org](http://www.naic.org) for a complete understanding of recent developments on these and other topics. This article does not represent an exhaustive list of the Fall National Meeting. The Fall National Meeting materials can be found at http://www.naic.org/meetings1612/cmte_a_latf_2016_fall_nm_materials.pdf?1483906468075.

COMPANYWIDE EXEMPTION

One development and some clarifications are noteworthy. First, the Companywide Exemption Drafting Group, a working subgroup of Life Actuarial Task Force (LATF), submitted an amendment proposal to modify the risk-based capital (RBC) requirement within the exemption. Currently, the conditions for qualifying for the exemption are:

1. The company has less than \$300 million of ordinary life premiums and, if the company is a member of an NAIC group of life insurers, the group has combined ordinary life premiums of less than \$600 million; and
2. The company must have reported total adjusted capital of at least 450 percent of the authorized control level RBC in the most recent report, and the appointed actuary has provided an unqualified opinion on the reserves; and
3. Any universal life secondary guarantee (ULSG) policies issued or assumed by the company with an issue date on or after the operative date of the Valuation Manual meet the definition of a non-material secondary guarantee ULSG.

The change being considered is to alter the wording in item (2) to limit the RBC criteria to apply to a company with *at least \$50 million* of ordinary life premiums, while a company with less than \$50 million of ordinary life premiums need not meet the RBC criteria, but must meet all other criteria.



This change is an attempt to recognize that smaller companies can have more volatile RBC fluctuations that could be cause for not meeting the criteria in a year after having met all the criteria in previous years. Although the change introduced by this drafting group was met favorably by LATF, it was not formally adopted because of other amendments that were introduced just prior to the Fall National Meeting. Two of these topics were mentioned in the Society of Actuaries (SOA)/American Academy of Actuaries (Academy) Post-NAIC webcast. The first topic involves clarification regarding whether a company that qualifies for and wants to file the companywide exemption may simply use the three-year transition period window in the initial years of 2017, 2018 and 2019 before actually filing the exemption with its domiciliary commissioner. This is a viable option for all companies considering the companywide exemption. The second involves clarification regarding the issue date on ULSG policies that do not meet the definition of a non-material secondary guarantee ULSG. Though it did not come through in the actual language found in the Valuation Manual effective for 2017 valuations, the regulators intended that the prohibition on ULSG policies would actually be effective as of the year the company files for the companywide exemption. As a result of these two clarification efforts and perhaps others, the Companywide Exemption Drafting Group's proposal will be further discussed in parallel with the recently submitted proposal forms, and action taken soon.

2017 CSO AND NET PREMIUM RESERVE (NPR)

LATF also has formed a Term NPR Drafting Group tasked with considering whether any changes to the NPR formula for term insurance are necessary, given the introduction of the 2017 CSO valuation mortality basis. During the months leading up to the Fall National Meeting, the American Council of Life Insurers (ACLI), together with some of its member companies, performed testing in order to help answer this question. During

the presentation of the industry testing outcomes, the ACLI put forth three general principles for assessing the appropriateness of NPR for term insurance, which are paraphrased here:

1. The focus of principle-based reserves (PBR) should be the modeled reserve amounts. In general, the deterministic reserve component for term insurance should be higher than the NPR for term insurance products for the industry as a whole, thus permitting reserves to be principle-based.
2. The NPR formula must be suitable for use as a tax reserve.
3. The NPR should produce reasonable reserve patterns that appropriately reflect pre-funding, and ideally should follow the patterns demonstrated by the modeled reserve.

The observations that emerged from the testing indicated that, from results of a diverse group of 13 insurers, these principles were largely maintained, when the results of these insurers were taken together as a group. Some companies exhibited NPR greater than deterministic reserve while others demonstrated the reverse, and some a bit of both, depending on duration. Had the outcome been more heavily weighted toward the majority of companies demonstrating NPR greater than deterministic reserve, and thus not aligning with principle (1), the conclusion would have been to pursue changes in the NPR formula for the next version of the Valuation Manual. As it turned out, however, such changes were determined by the regulators as not necessary, at least for now, since the NPR (as determined using the 2017 CSO mortality tables) and deterministic reserve appear to be reasonably calibrated to the previously mentioned principles.

MORTALITY TABLES SPECIFIC TO GUARANTEED ISSUE, SIMPLIFIED ISSUE AND PRE-NEED RISKS

A joint group consisting of the Joint Academy Life Experience Committee and the SOA Preferred Mortality Oversight Group has been developing these tables. A status of each is summarized here.

Guaranteed Issue (GI)

A report from the joint group's work is nearly complete and regulators will wait to review this report before exposing the tables. A basic table and valuation table will be available, and both include only uni-smoke mortality rates. The loading on the basic table rates to get to the valuation table rates follows a structure similar to the 2017 CSO, and is characterized as approximately 17 percent. The tables are male/female/unisex, with a five-year anti-select structure for the basic table. The valuation table consists of ultimate rates only. At present, the working definition of "guaranteed issue" is:

A policy or certificate where the applicant must be accepted for coverage if the applicant is eligible and the premium is paid with the exception of: (i) ineligibility

due to issue age ranges; or (ii) lack of membership in the eligible group (i.e., association group).

If the policy acceptance criteria include an actively-at-work requirement, any health-related requirements or waiver of any underwriting requirements based on minimum participation thresholds (i.e., worksite marketing), then the policy is not considered GI. As of the writing of this article, the joint group's report was in peer review and the tables were ready for consideration by the regulators. Exactly how the GI tables will fit into the VM-20 requirements and whether the GI valuation mortality table will be required for nonforfeiture values are questions the regulators need to resolve once the joint group's report is ready for distribution. Look for these discussions during 2017 LATF calls.

Simplified Issue (SI)

A report from the joint group's work is underway. A basic table and valuation table will be available, and both include only uni-smoke mortality rates. The loading on the basic table rates to get to the valuation table rates is approximately 35 percent. The tables are male/female/unisex, with a 10-year select structure for the basic table. The valuation table consists of ultimate rates only. At present, the working definition of "simplified issue" has yet to be determined, and is the subject of a broader committee focused on the definition for SI and accelerated/automated underwriting. Development of the SI basic table is complete and the joint group is working on finalizing the loading in the SI valuation table.

Pre-Need

A report from the joint group's work is in peer review and will be available soon. A basic table has been developed and is ready for publication. The pre-need basic table includes uni-smoke mortality rates. The rates are available in male/female/unisex rates with a 10-year anti-select structure. LATF had previously determined that for pre-need valuation, the 1980 CSO mortality table should be used. Once ready, you can find the pre-need basic tables and the joint group's report on the SOA website at <https://www.soa.org/Research/Experience-Study/ind-life/default.aspx>.

NAIC PBR SURVEY AND PBR PILOT STUDY

The SOA and NAIC PBR Implementation (EX) Task Force jointly conducted a study on PBR implementation during the summer of 2016 and published the results in a report dated October 2016 found at <https://www.soa.org/Research/Experience-Study/Bus-Practice-Surveys/2016-mortality-implications-pbr-survey-part2.aspx>. The survey summarizes the responses of 72 survey recipients, 15 of whom provided more in-depth responses regarding plans to implement PBR for valuations as of 2017 for at least one product. The reader can gain a better understanding of the foothold of PBR and the 2017 CSO table usage during 2017, which products will likely be valued under PBR, and reasons for companies to elect to implement PBR versus not implementing PBR.

To be available near the end of January 2017 is a report on the NAIC's PBR Pilot Study. Eleven companies participated in this study, submitting VM-31 actuarial reports to their domiciliary regulators. To date, regulators have shared observations that the level of detail varies across the submitted VM-31 reports, and they have observed a wide variety of interpretations regarding how companies determine mortality segments and corresponding statistical credibility and sufficient data periods. Regulators feel this latter aspect merits further guidance within the Valuation Manual and will likely be spending time in the near term discussing the concepts of mortality segment determination, credibility and sufficient data period. Look for a final written report on the NAIC Pilot Study outcomes to be available on [www.NAIC.org](http://www.naic.org) in the January to February 2017 time frame.

PBR TRAINING

There are many education opportunities specific to PBR. These publications were recently made available:

- Relative Risk (RR) Tool published by the SOA: <https://www.soa.org/Research/Experience-Study/Ind-Life/Valuation/relativerisktool.aspx>
- Impact of VM-20 on Life Insurance Product Development: <https://www.soa.org/Research/Research-Projects/Life-Insurance/2016-impact-of-vm20-product-development.aspx>
- Updated PBA Implementation Guide: <https://www.soa.org/Research/Research-Projects/Life-Insurance/research-2013-pba-implementation-guide.aspx>
- PBR Professional Development Series (free of charge to SOA members): <https://www.soa.org/prof-dev/ecourses/pbr-prof-dev-series/>
 - Credibility/ASOP 25 (available)
 - Application of Exclusion Tests (available)
 - Stochastic Modeling & Model Compression Techniques (available)
 - VM-20 Liability Assumptions Overview (coming soon)
 - Reinsurance (coming soon)
 - Product Development and Pricing under PBR (coming soon)
 - VM-31 Reporting (coming soon)
 - VM-20 Asset Assumptions Overview (coming soon)
 - Underwriting Criteria Scoring Calculator (coming soon)
 - Aggregation & Allocation (coming soon)

LATF VALUATION MANUAL REVIEW DRAFTING GROUP

This newly formed NAIC working group includes NAIC actuarial staff, Academy members, ACLI staff, and NAIC regulators at large. The focus of this group is to review the language of the Valuation Manual and audit it for consistency and also to receive and respond to questions from industry regarding

the application of the Valuation Manual requirements. You can follow this activity by clicking through to the “Exposure Drafts” area of the LATF webpage at http://naic.org/cmte_a_latf.htm. Currently, there is a set of initial questions and responses exposed for consideration.

VM-22 DEVELOPMENTS

There are three important developments with respect to annuity contracts to note. LATF exposed for a 45-day comment period the VM-22 Subgroup's proposal to revise the determination of the maximum valuation interest rate for income annuities. The proposal will better align the valuation interest rate for these contracts with the current economic conditions and the duration of the liabilities being valued.

Work on VM-22, or PBR for non-variable annuities, continues. The VM-22 Subgroup had been considering an interim simplified floor reserve method, but has largely abandoned this initiative after learning results of field testing on the method. The proposed simplified approach produced reserves higher than CARVM, whereas the expected outcome was for reserves lower than CARVM, to offset the 100 percent utilization assumptions inherent in current CARVM. Rather than spend resources refining an interim simplified approach, the regulators chose to focus on a PBR modeling method that satisfies the requirements of the Standard Valuation Law and has recognition of a company's prudent estimate assumptions.

The VM-22 Subgroup continues to consider the ultimate design for PBR for non-variable annuities. Having once pursued a method called the “representative scenario method,” this has been discarded in favor of a reasonable floor reserve, a modeled reserve, and some form of an exclusion test. The requirements being developed are expected to exclude payout annuities and apply to non-variable annuities with guaranteed living and/or death benefits. Follow the activities of the VM-22 Subgroup at http://naic.org/cmte_a_latf_vm22sg.htm.

2017 GENERALLY RECOGNIZED EXPENSE TABLES (GRET)

The 2017 GRET factors were adopted at the Fall National Meeting. The corresponding report can be found at http://naic.org/documents/committees_a_latf_exposure_gret_rec_letter.pdf. Compared to 2016 factors, the 2017 factors have increased, the distribution channel categories remain unchanged, and the number of companies included in the study has increased. ■



Karen Rudolph, FSA, MAAA, is a consulting actuary at Milliman Inc. She can be reached at Karen.rudolph@milliman.com.



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What You Need to Know About the 2013 Individual DI Valuation Table

By Robert W. Beal

The 2013 Individual Disability Income Valuation Table (2013 IDIVT) is now official. In August 2016, the National Association of Insurance Commissioners (NAIC) approved the table as the new statutory minimum reserve morbidity basis for individual disability income (IDI) policies. A company has between Jan. 1, 2017, and Jan. 1, 2020, to implement the new table, which applies to all policies issued on or after the selected effective date for statutory active life reserves and all claims (regardless of year of issue) incurred on or after the selected effective date for statutory claims reserves. The new table replaces the 1985 Commissioner's Individual Disability Tables A and C as the statutory minimum reserve basis for new policies and claims.

The 2013 IDIVT was developed by the Individual Disability Tables Working Group (IDTWG), which was a joint committee of the Society of Actuaries (SOA) and the American Academy of Actuaries. The database used to develop the new table was compiled by the SOA Individual Disability Experience Committee (IDEC) and represents industry claim incidence and termination rate experience from 1990 to 2006 for incidence and 2007 for terminations.

Implementation of the 2013 IDIVT will not necessarily be easy, given the complexities associated with the new table. If they

Companies' IDI reserve systems could require significant revisions to accommodate the structure of the new table ... There is much to do, and it needs to begin sooner rather than later.

have not already, companies with IDI blocks of business need to get up to speed with the new table and determine the necessary changes to their reserve systems. This article discusses many of these complexities.

WHAT ARE THE KEY SOURCES ON THE NEW TABLE?

There are three important sources that companies should obtain:

1. **Report of the Individual Disability Tables Work Group of the Academy of Actuaries and the SOA ("the Actuarial Guidelines").** The Actuarial Guidelines describe the structure of the new table and how companies must adjust claim reserves to blend their own experience and the new table. Access the Actuarial Guidelines at http://actuary.org/files/IDTWG_Table_Report_121915_0.pdf.
2. **2013 IDI Valuation Table Workbook Version 1.3.** This workbook, prepared by the IDTWG, contains all of the claim incidence and termination rates and modifiers for the new table. It also allows the user to compare claim incidence rates, termination rates, claim costs, active life reserves and claim reserves for the new table and for the 1985 CIDA and CIDC tables. Access the IDTWG workbook at <http://www.actuary.org/content/2013-idi-valuation-table-workbook-version-13>.
3. **Health Insurance Reserves Model Regulation.** The model regulation has been revised to reflect the implementation of the 2013 IDIVT. Access the revised model regulation at https://urldefense.proofpoint.com/v2/url?u=http-3A__www.naic.org_store_free_MDL-2D010.pdf&d=DwIFAg&c=SbSbeBtp5dC0Du3gqnCYzA&r=RcB4E0BLA0tvkl-RbniSUFNtmLxKF1btYrvKsfYZKlc&m=0VhpFyzuHtEHcv9wPLtmLNz07pIKtc6tU8DGz3EAbCk&s=Zdt4NtmM2AxI-b78sLVTYM9izU8bXCNbpKQFiEqbv8g&e.

WHAT'S DIFFERENT ABOUT THE NEW TABLE?

Simple answer—a lot! In addition to updating the experience basis from the late 1970s, the new table is intended to reflect many of the facets of the IDI risk that have emerged over the last 30 years but that were not taken into account in the 1985 CIDA and CIDC tables. The following is a list of how the structure of the table has changed:

- A medical occupation class in addition to occupation classes 1, 2, 3 and 4
- Distinct incidence rates for zero-, seven-, 14-, 30-, 60-, 90-, 180-, 360- and 720-day elimination periods
- Incidence rates extended to age 69

- Modifiers applied to the claim incidence rates to reflect differences by contract type, benefit period, smoking status, market (employer-sponsored vs. individual-bill) and underwriting type for employer-sponsored policies
- Distinct “select” claim termination rates for zero-, seven-, 14-, 30-, 60-, 90- and 180-day elimination days (i.e., during the first 10 years after the date of disablement)
- Monthly claim termination rates for the first five years of a claim, followed by annual rates
- No weekly claim termination rates as in the 1985 CIDA and CIDC tables
- “Ultimate” claim termination rates: after 10 years of disablement, which vary by attained age, sex and occupation class (medical vs. non-medical) and go to age 119
- Modifiers applied to the select claim termination rates to reflect differences by contract type, benefit period, presence of a cost-of-living rider and claim diagnosis (for claim reserves only)
- Claim termination rates no longer split between accident and sickness, although there are modifiers to produce claim termination rates for accident-only and sickness-only coverages
- Base claim termination rates: prior to the application of modifiers, provided in tables, not derived from formulas as they are for the 1985 CIDA table
- Base claim termination rates from the 2013 IDIVT adjusted to reflect company experience in all claim years based on credibility theory
- Margins explicitly added to active life reserves by increasing the incidence rates by 5 percent and multiplying the claim termination rates by 95 percent in the first claim year and 85 percent in all other claim years
- Margins explicitly added to claim reserves by multiplying the claim termination rates by 95 percent in the first claim year, followed by percentages based on a blending of company and industry experience, not lower than 85 percent after the first claim year

HOW WILL THE NEW TABLE IMPACT RESERVE LEVELS?

Claim termination rates for the 2013 IDIVT are typically lower than those for the 1985 CIDA or CIDC tables and will produce higher reserves. Of course, many companies already hold a stronger claim termination rate basis to reflect their own experience and may not need to strengthen their reserves, if at all, to the extent that companies that have been using 100 percent of the old tables will need to.



Active life reserves and claim reserves for medical occupations will most likely increase because claim incidence rates for the medical occupation class are almost double those for occupation class 1, and claim termination rates for the medical occupation class are generally lower. It is difficult to predict how active life reserves will change under the new table for the non-medical occupation classes. In many cases, the new table produces active life reserves that are lower than those derived from the 1985 CIDA table.

Claim reserves for policies with lifetime benefits will increase significantly because the new ultimate claim termination rates are generally 35 to 45 percent of the ultimate rates from the 1985 CIDA table for ages beyond 60. The 2013 IDIVT ultimate claim termination rates could indirectly affect claim reserves on all claims with the lifetime benefit regardless of the year of incurral. It will be difficult for companies to justify using ultimate termination rates that are materially higher than the 2013 IDIVT rates in setting best-estimate assumptions for gross premium valuations and cash-flow testing if they do not have credible data to support their ultimate termination rates.

NOW IS THE TIME TO BEGIN THE IMPLEMENTATION PROCESS

Companies’ IDI reserve systems could require significant revisions to accommodate the structure of the new table. Companies will be expected to measure their claim termination rate experience relative to the new table at least annually and adjust the valuation claim termination rates for company experience using the methodology described in the Actuarial Guidelines. Financial projection systems will need to be updated to reflect the new table and to inform management of the potential impact of the new table on future statutory earnings. There is much to do, and it needs to begin sooner rather than later. ■



Robert W. Beal, FSA, MAAA, is a principal and consulting actuary at Milliman Inc. He can be reached at bob.beal@milliman.com.

2016 SOA Annual Meeting & Exhibit Summary

By Jonathan Pollio

I have often looked at an actuarial convention as a way to catch up on what's new with old friends and new topics. It is also a way for me to get an idea where the profession is headed. There are times when I encounter surprises, but what is life without surprises? Sometimes, I get confidence knowing I understand topics better than I thought I did. If there is a subject that is discussed that interests you, please use all the resources available to find out more. My goal is just to give a general view for you to look (or not to look) at things in depth later.

PRESIDENT'S ADDRESS

Our new president, Jerry Brown, FSA, MAAA, gave us an address as to where he would like to see the profession go. He mentioned five different topics that he would like to focus on as president.

1. **Maintaining credibility.** Rigor as well as accuracy. Who is not for this?
2. **International recognition.** We need to work with our international colleagues. I like this one because they have a lot of knowledge to share with us.
3. **Broadening our work.** We are seeking ways to expand into predictive analytics.
4. **Other organized activities.** Promote better relationships domestically and more outreach to the general community.
5. **Diversity.** Having a diverse group should only strengthen us as a profession. The different perspectives can only make us stronger and more insightful. As an aside, it is amazing how much more diverse the annual meeting is than many years ago when I started.

(For more information about the president's address, please go to <http://theactuarymagazine.org/the-year-ahead/> or <https://www.youtube.com/watch?v=TEohx1seRLQ&feature=youtu.be>.)

As a final thought, I talked with Jerry later in the meeting. He lives right near me, so if he wants to talk about anything he is



welcome to come over and share a drink. My belief is he will add a lot to the profession and I wish him the best. Hopefully, he will talk with many of you about your thoughts.

MEALS

Meals are always a favorite part of any meeting. This gives me a chance to eat, which I enjoy, telling war stories and hearing speeches. The company at these meals is incredible. One speech was from Sal Khan, founder of the Khan Academy, a nonprofit that brings free world-class education to the internet. (I had never heard of Khan Academy before this speech.) It is too bad my children are too old to use this. Maybe lunch would not have been their best subject if it had existed or if I was more alert.

Journalist Nick Bilton gave a speech on driverless cars and other technological achievements. It is fascinating how a driverless car could change casualty, individual accident insurance (accidental death and dismemberment (ADD) included) and potentially life and health insurance. The cars would talk to each other and make fewer accidents. It would also make my commute a whole lot easier.

STAT UPDATES

Every year, I enjoy the stat updates. Donna Claire, FSA, CERA, MAAA, and Tom Campbell, FSA, CERA, MAAA, always do a great job on this. Obviously, principle-based reserving (PBR) was talked about. For those who have not followed PBR, please get to work. It is starting very soon. Fortunately, many of us are exempt ... for now. Also discussed was the change in credit for reinsurance. This has needed to be clarified for a long time. I am pleased they are working on this. Also discussed was that a new table for simplified issue is coming. A former company of mine did this type of insurance, and it is tiresome to explain (every year) to an auditor why 2001 CSO is not accurate for this business. Let's also not forget the tax problems without a table. A new table would be great and would help to even the playing

field. They also discussed principle-based approach (PBA) for variable annuities (VAs) and non-variable annuities. We then went into a discussion of risk-based capital (RBC) (potentially 20 categories for National Association of Insurance Commissioners (NAIC) bonds). I wonder how 20 NAIC bond categories will affect A.M. Best ratings? They discussed streamlined procedures, Own Risk and Solvency Assessment (ORSA) and many places to get information about these topics. Every year, this session makes me feel both very behind and not as behind as I thought. We should all thank Donna and Tom for doing a great job on this every year.

GAAP UPDATES

As someone who does U.S. GAAP statements, this session gave me many things I need to research. First of all, there is a rumored change coming to the section formerly called FAS60. If you write term, individual health or par whole life (using this section) then this is important. They are thinking of going to a more FAS97 (experience-adjusted) way of doing these products. It would be a major change to all of us on reporting for these products. Fortunately, they are talking 2022 or later (much later if you assume the PBR timetable). This change is still worth putting on your radar. They also had a piece about short-duration contracts and how those might be changing. This would affect credit insurance, stop loss and group insurance. This change appears to be more disclosure and is definitely relevant. More research is needed on both of these topics by me.

OTHER SESSIONS

As always, there are sessions that give me some interesting insights into things I have not thought about. There was an international session that talked about how the various international rules are changing. The United States is not joining in, and that will affect us internationally. I went to another session

that was dealing with how our mortality may not be improving. It dealt with the increase in obesity and Type 2 diabetes. It also talked about how we are doing less exercise and the increase in infectious diseases. I went to an innovative product session that would have been great if I ever had that many resources. There were numerous Affordable Care Act (ACA) sessions that were all interesting, but in light of recent events may not be that relevant. In the original draft of this article, ACA was its own section. Only the lessons learned may be relevant, so ACA was put in this “other” section. There is a “wait-and-see” attitude for me on ACA, much like the GAAP sessions. The difference is we have some idea where U.S. GAAP is going. Your guess is as good as mine on ACA.

OTHER THINGS

Finally, conventions provide opportunities to catch up with old friends and meet “friends” I have not made yet. The solutions discovered from between session conversations are always helpful. Last year those conversations made all the difference in my life and career. This year they were not as groundbreaking but they were very helpful. I want to thank the people who always help me so much. Some of you may help and not even realize it. I hope to give back one-tenth of what I get from the other people at the annual meeting. That would be a large contribution and one I could be proud of. It is easy to forget what a great profession we are. We are full of intelligent and ethical people. Keep up the good work! ■



Jonathan Pollio, FSA, MAAA, is senior vice president, chief actuary, at Amalgamated Life Insurance Company. He can be reached at jpollio@amalgamatedlife.com.

How Small Companies Can Outperform

By Jenna Lauren Fariss

I recently had the pleasure of presenting at the Society of Actuaries (SOA) Annual Meeting & Exhibit in Las Vegas on “How Small Companies Can Outperform.” Thank you to the Smaller Insurance Company Section for reaching out to me to be a panelist. I love attending meetings wearing the speaker’s ribbon—it is such a great conversation starter. Being with a small company, I typically know few people at the meetings and appreciate the ice breaker!

I have been with a small firm my entire career and, therefore, want to frame the discussion through that experience of growing up in the industry. There are certainly disadvantages of smaller companies—budgets, marketing, exam study time and so on, but the more interesting story is the ways small companies can outperform. With the obvious benefits of larger companies, this is in no way an advertisement or even the suggested model but, hopefully, my experience will illustrate methods or trigger ideas you could incorporate into your practice.

In 1997 I started as an intern. Even getting the internship is an illustration of less bureaucracy in small companies. Maybe you have kids or young relatives trying to score internships in today’s market. It is very competitive. Most large companies have formal positions and criteria for candidates. I grew up in a small town called Fancy Gap, Virginia. After learning about the actuarial profession in high school, I took to the SOA website and began researching any SOA member within driving distance of my home. Then I called them all and begged for an opportunity just to bring coffee and watch! The large insurance companies I called had strict guidelines for internships, such as only in the summer, and required years of college experience, and so on.

Being a small firm allowed one of the actuaries the flexibility to say, OK, we can make room for her even though there was not already an established internship program. The timing that my school required for an internship was in the spring rather than the typical summer internship program that larger companies would have more easily been able to accommodate. The firm was able to seize the opportunity and move quickly once a decision was made. And, hopefully impressed by this intern, the firm made a permanent position. Therefore, being small allowed

them to retain excellent employees! Maybe there are ways within your department, if not company, where you could have more unilateral decisions made to incorporate similar speed and flexibility for certain challenges.

There were just four other people at the firm when I started my internship—all actuaries. On the surface at least, I would argue (read “rationalize”) it is much easier to pass exams at a large company. Companies would have study programs, materials and study partners all readily available. Or maybe that is just my excuse! I quickly realized reading the actuarial exam syllabus textbooks alone was not getting me through the exams and asked for help. So often I think of my lack of knowledge as a negative, but it turns into a real asset by forcing me to expand my network and reach out to other experts. Ask for help. I did just that when I started going to exam preparation seminars. Admitting I needed help with exams did not mean that I was not good at my job or that this was the wrong career for me, as the soundtrack playing in my mind was professing. As a company, we focused on what we knew best and outsourced the rest, including exam preparation! This reaching-out skill has led me to grow my network and find some invaluable resources and mentors.

Similarly, as a small firm of just four employees (all actuaries), we had always asked for help by outsourcing any technical support issues. We focused on the actuarial work and outsourced the information technology (IT) and hardware needs. Eventually we started being the IT experts and advising clients how they could focus on their mastery and outsource IT to our firm. By creating a great network of outside advisers and experts, everyone can improve the level of service they offer.

Even before the collective hysteria of Y2K, our firm started seeing actuarial clients struggle with getting their computers to communicate with co-workers and other contacts. Work groups as a gateway to full-fledged network file shares were brand new concepts. Even after I graduated from college and had been working full time with the firm, I enrolled in the Microsoft Certified Software Engineering series of classes at our local community college.

Being a small, nimble company allowed our firm the ability to innovate. We saw a need for our clients without a readily, or at least obviously, available solution. We offered creative solutions for clients to set up in-house networks or work groups in order to better manage their growing data needs. I agree with the SOA’s sentiment that actuaries should never say something we do is not actuarial work. I have certainly been guilty of this. As professionals, we are filling needs or gaps within typically non-actuarial industries and roles like banking, investing, management, marketing and information technologies. Our actuarial training gives us a unique judgment we bring with us to any table we join, regardless of the traditional description.

Continuing the theme, the firm's small size granted us the advantage of reaction time needed to enter an emerging market opportunity in information technologies. We also took a step back from what we had always been doing to train and learn new skills. We all have more we want to accomplish, but a small company especially forces prioritization. Saying no can be equally important. It is tempting to act on opportunities as they arise, but waiting for the best prospect can be vital.

At a small firm everyone wears many hats. I used to see this as a disadvantage. I was embarrassed that I did not have more focused experience, say, in purely pricing. Now I think of that diverse experience as an asset. At a small firm your hands are tied and there is simply less ability to delegate. For us it was by necessity of our size that the actuaries had a hand in every piece of the puzzle. My takeaway for you, I hope, is the value added in having actuaries involved sooner and throughout the decision-making processes. This is similar to what the Agile streamlined approach has popularized. Even the proximity of a small company means I am literally hearing the accounting team's conversations and the programmers' issues. While it is not practical in any organization to have one person make every decision, I am convinced it is worth being intentional about

bringing actuaries into conversations early in the creative process as a key for any organization. There is amazing research that what some might call procrastination is actually our most effective time thinking. I know some of my best ideas and solutions have come after I have heard of a problem or a project, put it aside, but the back of my mind is still mulling it over as I have moved on to the more pressing matter. Similarly, our failed ideas are not worthless but what we know in the actuarial world as scenario testing. These not-bad ideas but maybe-not-our-best ideas also serve us well as backup plans and backup to backup plans.

All this is to say I am not staying in my lane. Actuaries have a lot to add to any process, and look for those places where actuaries have not traditionally been. Special thanks to our moderator Terry Long, ASA, EA, and panelist Doug Baker. ■



Jenna Lauren Fariss, ASA, MAAA, is CISO and actuary at Actuarial Management Resources. She can be reached at jfariss@actmanre.com.

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