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Hitting the Target: Improvements to U.S. GAAP for Long-Duration Insurance Contracts

By Steve Malerich

In 2014, the Financial Accounting Standards Board (FASB) withdrew from an international project to develop new, comprehensive standards on accounting for insurance contracts. Instead, the board decided to focus on targeted improvements to existing GAAP.

Now nearing the end of deliberations, FASB staff will soon begin drafting amendments. Barring any delays, drafting should begin by the time you read this and we may see an exposure draft in early 2016.

In this article, I first summarize the tentative decisions made on long-duration contracts. I then present a list of risks and opportunities that I see as the decisions become standards. I'll end with a look at practical implications of the project.

TENTATIVE BOARD DECISIONS

February 2014 – The changes will apply only to insurance entities. The project should focus on making targeted improvements to existing U.S. GAAP. The IASB 2013 exposure draft should be considered when contemplating improvements.

April 2014 – The project should address several issues relating to valuation of the liability for future policy benefits, amortization of the deferred acquisition cost asset, premium deficiency and loss recognition, and revenue recognition disclosures.

August 2014 – Assumptions used in calculating future policy benefits for traditional contracts, limited-pay contracts and participating contracts are to be updated annually during the fourth quarter. Effects of the changes are to be included in net income. Provision for adverse deviation should not be included. A premium deficiency test will not be required. Certain disclosures about the liability and assumptions will be required. The guidance for periodic assumption updates will apply also to additional reserves of universal life-type contracts. [The board has yet to address some details of what this means to participating and universal life-type contract liabilities.]

November 2014 – Contracts that are discounted using an expected investment yield under existing GAAP should be discounted using a rate based on a portfolio of high-quality fixed-income investments.

February 2015 – Deferred acquisition costs relating to certain investment contracts will continue to amortize using an effective interest method. Otherwise, deferred acquisition costs will be amortized over the expected life of a book of contracts in proportion to the amount of insurance in force. If the amount in force is not readily determinable, amortization would be straight-line in proportion to the number of contracts outstanding.

July 2015 – Updating of cash flow assumptions will require a retrospective approach. The revised net premium ratio is calculated as of contract inception using actual historical experience and updated future cash flow assumptions. A cumulative catch up adjustment is to be recorded in current-period earnings. The net premium ratio is capped at 100 percent. Updating of the discount rate will require an immediate approach, with no update of the net premium ratio. The difference between the carrying amount of the liability and the amount measured using discount rates locked in at inception will be included in accumulated other comprehensive income.

September 2015 – Variable contract “benefits with other-than-minimal capital market risk” will be measured at fair value. Further research is needed to determine whether the effect of changes in own credit spread should be reported in other comprehensive income.

See www.fasb.org for additional details about these decisions and for further updates.

WATCH LIST – RISK AND OPPORTUNITY

Simplification and greater consistency are among the goals of this project. Toward those ends, FASB staff members have openly sought feedback from the industry and our profession and have carefully considered our comments. That has helped to shape some decisions.

Yet, turning decisions into standards cannot guarantee realization of the goals. When interpreting the standards, we risk complicating matters by settling too quickly on what might seem obvious.

To help prevent complication, here is my list of things to watch for in the exposure draft and my current thoughts on how best to address them. Ideally, these will be addressed directly in the final standard and our responses to an exposure draft may help to make that happen. Where ambiguities remain in the final standard, we should take care to interpret them consistent with the project's objectives.

The opinions expressed here are mine and are subject to change as more decisions are made and better ideas emerge.

Asset Yields Lower than Reserve Discount Rate

Situations with expected asset yields below the discount rate might seem to require loss recognition.

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Chairperson's Corner A Hard Act to Follow

By Leonard Mangini

The I want to start by thanking the section and section council for allowing me to follow in the footsteps of the brave people who have dared to wear the green jacket! Hopefully, the lab results which claim that the only residual effects of the original radioactive material from which it was hewn is its green glow are true ... I suspect they are given the number of half-lives since its creation ...

This October we bid farewell to three section members whose terms have ended: John Esch, Tara Hansen, and Jim McWilliams. I'd like to thank them for the time, dedication and service they've provided as generous volunteers and the leadership they've exhibited in their roles as secretary, chair, and treasurer, respectively. As you'll see in the summary below of all the section's activities and initiatives, Tara is a hard act to follow and I hope to build on these accomplishments over the next year. I'd also like to welcome our three new section council members who joined at the Annual Meeting in October—Bob Leach, David Ruiz, and Ashwini Vaidya—congratulations!

RESEARCH, OUTREACH, AND WEBCASTS

Our members continue to tell us how important research and continuing education is to helping them with their professional responsibilities. We've ramped up our webcast delivery channel in response to very busy people asking for more accessible content. We're continuing, and expanding, outreach to other sections whose interests intersect with financial reporting—"old friends" like the smaller insurance company and product development sections, and newer ones like the health, modeling, and tax sections.

One new project the section is joint-sponsoring is an effort to update the PBA Implementation Guide as it looks more and more like PBR will become effective as early as Jan. 1, 2017. The section is also co-sponsoring a project to look at a set of deterministic scenarios that could be used for asset adequacy testing and other analyses. We're also supporting prize awards for predictive modeling papers that relate to financial reporting.

The results of projects the section helped to fund have recently been presented. This includes the impact of the new 2015 VBT/2017 CSO tables on product development and financial reporting; an extreme events study exploring correlations, models, and mitigation for market, credit, insurance, liquidity,

and business risk; and a report on Insurance Accounting under Multiple Accounting Bases looking at U.S. statutory, US GAAP, Canadian CALM, IFRS, and Market Consistent balance sheets.

Recent section sponsored webcasts included one on PGAAP, another on gains followed by losses, and an economic balance sheet seminar should be coming out at about the same time you receive this newsletter. We're also actively exploring reviving the very popular GAAP reporting seminars as it becomes clearer that IASB and FASB convergence becomes more distant.

LOOKING AHEAD

Our goal is to serve the membership, so we welcome feedback and suggestions on how to improve the content of our educational offerings, the utility of our research, and the resources on our website.

Please feel free to reach out to members of the council with your ideas and we will be actively reaching out—as we recently did at the Financial Reporting Hot Breakfasts—to get your suggestions.

I look forward to continuing to work with other section leaders, members and friends of the council as we prepare for another exciting year! Like I said, it will be a hard act to follow ... ■



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Such deficiencies, however, arise from investment activity and from financial guarantees embedded in the contracts, not from insurance features. GAAP does not permit loss recognition reserves for deficiencies in investment contracts, such as deferred annuities (ASC 944-60-35-6). With respect to interest deficiencies, accounting for insurance contracts should be the same.

Loss Recognition for Universal Life and Participating Contracts

Ensuring reserve adequacy on universal life contracts might require additional reserve calculations for all such contracts, including maintenance expenses, and with a 100 percent cap on the benefit ratio.

Ensuring reserve adequacy on participating contracts might require current best estimate assumptions, including maintenance expenses and policyholder dividends.

DAC Recoverability

Though FASB intends to eliminate the premium deficiency test, the changes do not ensure that contract margins will be sufficient to recover the deferred acquisition cost asset. It seems likely, therefore, that the final standard will require ongoing testing for DAC recoverability.

Such testing should be consistent with the liability valuation. Consistency can be built into reserve valuation systems. By calculating an alternate reserve using identical methods and assumptions, but with a 100 percent net premium or benefit ratio and without a reserve floor, the difference between the calculated reserve and the alternate reserve would represent the amount of DAC the cohort's revenue can support. Summing such amounts from multiple cohorts would allow testing of recoverability at an appropriate level of aggregation.

On traditional contracts, we may need a similar calculation for the current discount rate—a shadow DAC recoverability test—but no new projection should be needed.

On universal life contracts, the benefit ratio will adjust for any change in expected interest margin and its effect on DAC recoverability will be automatic.

Unrealized gains will require a shadow reserve adjustment, equal to the product of the benefit ratio and the amount of unrealized gain or loss. Shadow DAC recoverability will adjust for the remainder of unrealized gains.

Discount Rate for Variable Product SOP Reserve

If any variable product SOP reserves survive the September 2015 decision, the practice of

blending general and separate account rates to discount cash flows should end.

Though these are separate account products, the guarantees are backed by general account assets and the reserve discount rate should be determined accordingly.

Profits Followed by Losses

Even after the planned changes, at least two circumstances can result in profits followed by losses—reserve floor and negative revenue. Neither should be considered premium deficiency.

- When current assumptions result in a projection that the reserve will fall below a zero floor, negative earnings might be expected for some time after.

Negative reserves arise when projected net revenue is greater than projected benefits. In this situation, subsequent profits will be higher and the expected losses do not reflect a long-term deficiency.

- When revenue includes an interest margin, projected revenue may turn negative and a benefit ratio of less than 100 percent would result in expected losses in the years of negative revenue.

Such losses result from investment activity and financial guarantees, not insurance features, and should not require loss recognition.

Also, calculations can be kept simple and the pattern of profits followed by losses mitigated by including negative revenue in the calculation of both the benefit ratio and the additional reserve.



Front-End Loads

Many people interpret existing standards to require deferral of any universal life load that is collected over a limited term. This sometimes leads to confusing or illogical results.

There are circumstances when even a temporary load should not be treated as a front-end load. Alternative treatment should be considered: (1) if the sum of expected temporary loads is greater than the sum of all acquisition costs; or (2) if URL amortization during the early years would exceed the temporary loads during those years.

In either case, the loads might more properly be accounted for among other assessments in an additional reserve calculation. In borderline situations, the difference between URL amortization and reserve accrual should be insignificant, making a sharp dividing line unnecessary.

Assessments and the Amortization of Unearned Revenue

Current standards amortize unearned revenue into assessments for the calculation of additional reserves. This should change. Front-end loads cannot be used both to recover acquisition costs and to fund contract benefits. Further, if amortization remains consistent with DAC then including it in revenue would complicate the reserve calculation and make results more difficult to explain.

Assessments and Interest on an Additional Reserve

Some interpretations of existing GAAP include interest spread from additional reserves in assessments. This is contrary to the notion that a liability is based on discounted product cash flows and makes the current reserve dependent on a projection of the reserve, adding significant inefficiency to the valuation.

Product cash flows should not include interest on an additional liability. (Interest spread on the policyholder account value, however, may remain a component of revenue without overly complicating the reserve calculation.)

Mixture of Retrospective Unlocking and Fixed Margin

The mixture of retrospective unlocking with an immediate approach for changes in discount rates could lead to either of two undesirable effects: (1) the process of maintaining both becomes needlessly complex; or (2) significant differences, unrelated to discount rates, could emerge after an assumption change if the immediate approach's net premium ratio were locked in at issue.

These can be avoided and the calculation can be made most efficient if the balance sheet liability uses the same cash flow projection and net premium ratio as the basic reserve calculation.

DAC Unlocking

Though not explicit in the board decisions, I understand that

DAC amortization will use a prospective approach to unlocking. On the surface, this might seem to add complication—bringing a total of three different approaches to the unlocking process.

With the decision to amortize on amount in force, however, prospective DAC unlocking makes more sense than the alternatives. Any added complexity in the calculations should be minimal and its cost more than offset by the simplicity of explaining results.

As-of Date for Recalculating Net Premium (or Benefit) Ratio

The July 2015 decision about unlocking “as of contract inception” implies that everything should always be discounted to contract inception. Results of the unlocking, however, will be easier to explain if history is accumulated and projections are discounted to a current date. Further, some controls are stronger if there is a clear division between actual and projected experience; accumulating actual and discounting projected helps.

As long as the correct interest rate is used for accumulating and discounting the correct cash flows, the net premium ratio is independent of the date to which everything is accumulated or discounted.

Inception and the Fixed Discount Rate

A market-based discount rate fixed at inception of traditional cohorts could imply that new cohorts are needed whenever interest rates change. Such rigidity, however, could partly defeat the purpose of these changes.

Unless interest rates move significantly, practice should allow for aggregation of successive quarters. When considering interest rate changes, significance will likely vary by the anticipated premium pattern. At the extreme, single premium contract liabilities will be most sensitive to initial interest rates.

Timing of Unlocking

Many have expressed concerns about the restriction of unlocking to the fourth quarter.

Though there are benefits in limiting assumption changes to one quarter each year, prohibiting changes at other times can be problematic. Selection of the fourth quarter will be problematic for many.

Also problematic is the association of true up for experience variances with unlocking. This would force a delay between variances and their effects on reserves. Bad experience will look especially bad when it happens, and then sometime later we'll report a favorable offset. Similarly, good experience will look especially good when it happens, and then sometime later we'll report an adverse offset.

In this decision, I have been unable to find any real improvement without at least partial backtrack to a more dynamic stan-

dard. Though the board is considering a change, this remains something to watch.

OUTLOOK – DREAD AND OPTIMISM

Implications of these changes are varied, and observers have different opinions about the quality of the board decisions. For me, dread began with some of the first decisions. As I sought ways to lessen the damage, however, I began to see opportunity. Today, my dread comes from anticipating the transition effort and from considering how we might miss out on the practical benefits of change.

I believe we will find that seriatim valuation is no longer practical and cohort-level reserve calculations will become the norm. That will make transition especially challenging for traditional products. Lacking history in an appropriate level of detail will make precise transition practically impossible. Some forms of simplified transition will be essential. Even with simplified approaches, preparing valuation cohorts for decades of business in force will take significant time and effort. For many, mastering a new approach to valuation will also take time.

Conceptually, adapting universal life valuation systems to handle traditional products should not be difficult. Practically, however, many systems will have to be made much more efficient. A comprehensive system designed to handle all existing standards and multiple interpretations often needs more variables, more conditions, and more complex calculations than even the most complex interpretation of any standard. That makes it more inefficient than the most inefficient calculation.

My optimism comes from several benefits that I see in these changes. If we're successful in helping to shape the new standards and in implementing the standards:

- Valuation systems and processes will be more efficient. One projection will suffice for reserves, DAC recoverability, and shadow accounting. Product switches will tell the reserve which cash flows to use, but need not turn calculations on and off based on some ancient condition.
- Systems and processes will be consistent among products. Product expertise will be needed to understand product dynamics and to determine valuation inputs, but not to perform valuations.
- Reported product performance will be driven mostly by actual experience and much less by accounting differences. Explaining results can focus more on actual experience and less on accounting.

For these reasons, I see great opportunity in this project. That vision (along with the dread) has driven me to actively engage in this effort over the past year.

Turning optimism into reality, however, will require more than the concentrated efforts of a few accountants and actuaries. Critical thinking and many open minds searching for great answers rather than “the right answer,” tempered by practical testing, may ensure that real improvement comes from “targeted improvements.” ■



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Do Accountants Listen?

By Jim Milholland

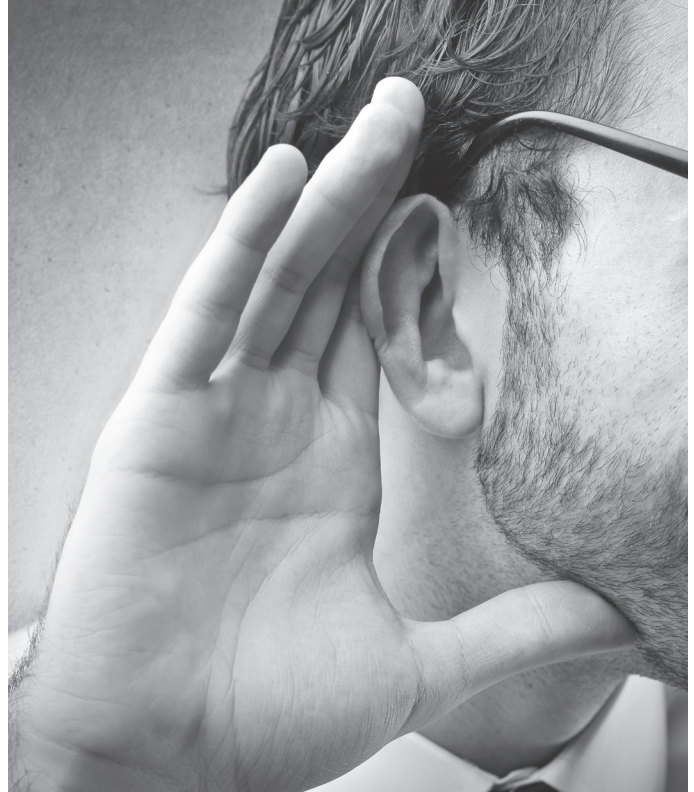
Do accountants listen to actuaries?

I won't keep you in suspense. The answer is "yes," and you probably suspected that. But the extent to which actuaries have influenced accounting concepts and financial reporting standards may surprise you.

Actuaries and accountants have enjoyed a cordial professional relationship for decades. There is a steady stream of communication between the two groups both formally and informally. Actuaries and accountants work together inside insurance companies, accounting firms employ actuaries, and actuarial firms sometimes employ accountants. The American Academy of Actuaries (Academy) meets regularly with the American Institute of Certified Public Accountants to discuss topics of common interest. The Academy comments on proposals of the Financial Accounting Standards Board (FASB) and of the International Accounting Standards Board (IASB) that affect insurers in United States. The formal communications are supplemented by many informal encounters, including face-to-face meetings, emails and calls. I can say from personal experience that IASB members and staff of the IASB sometimes read articles from *The Financial Reporter*.

The International Actuarial Association (IAA) has a memorandum of understanding with the IASB. This short document articulates the commitment of the intent of the two organizations to work together. In keeping with the intent, the IAA has a representative on the IFRS Advisory Council. This means that the IAA's formal involvement rightfully extends beyond strictly actuarial topics and that actuaries can do more than react to the activities of the IASB—they can help influence the direction of the IASB.

So we talk to each other, but does it make any difference? Again the answer is "yes." The history of the insurance project shows how actuaries have contributed to the proposed standard. I believe that the changes to accounting for financial instruments and the proposed changes to the *Conceptual Framework for Financial Reporting* (the CF) also illustrate how actuarial thinking has infected accounting concepts. Each of these is discussed further in the following paragraphs.



When I first became involved with the IAA, in 2001, and started closely following the IASB's activities related to insurance, I was shocked by what I learned about the IASB's views. The IASB did not want the measurement of long-duration contracts to consider future premiums that were not required to be paid. In their minds, including future premiums would be tantamount to recognizing an asset for a set of cash flows that do not meet the attributes for recognition. Furthermore, they did not want the liability to be reduced by the option to cancel the contract (i.e., they were uncomfortable with the effect of considering surrenders in projected cash flows), because a put option can't be an asset. They also wanted to unbundle and separately measure the investment components of whole life contracts. It goes without saying that the preliminary views of the IASB were not well received by the insurance industry. The industry argued strongly for a more holistic view of insurance contracts.

Over the course of many years, the arguments of the insurance industry eventually prevailed. Insurers were able to convince the IASB that insurance contracts could only be faithfully represented as a bundle of cash flows. Actuaries were everywhere to be found in the discussions and deliberations. Actuarial input was most apparent in comment letters by actuarial organizations and presentations to the IASB by actuaries. Actuaries were involved in nearly all industry responses to the preliminary views of the IASB, although to the casual observer their involvement may not have been as apparent.

Actuaries' influence on accounting for insurance is not surprising. But the influence of actuaries extends beyond insurance related topics. It is interesting to observe the evolution of accounting concepts over the period of time that actuaries have been actively providing input to accountants. The accounting for impairments of financial assets found in IFRS 9 *Financial Instruments* (IFRS 9) provides an example. IFRS 9, which will

be effective in 2018, supplants much of the guidance found in existing accounting standards and will eventually become the single accounting standard on financial instruments.

In the current guidance, impairment losses are recognized when incurred; i.e., when the impairment occurs. After IFRS 9 is effective, the expected loss model will apply when a company acquires a financial asset and measures it at amortized cost. The company must estimate expected credit losses over a 12 months period and recognize a loss allowance, which creates an immediate impairment loss in the income statement. The period over which the company looks for expected losses extends to the remaining lifetime of the asset if the credit standing of the asset significantly deteriorates or if it is in fact impaired. The effective yield is not affected by the loss allowance.

The expected credit loss is measured “in a way that reflects ... an unbiased and probability-weighted amount that is determined by evaluating a range of possible outcomes.”¹ This sounds very actuarial to me.

So I take the accounting guidance for expected losses in IFRS 9 as evidence that accountants are increasingly thinking like actuaries. I believe that it is a result of actuaries working with accountants.

It is also evident that accountants have not come around completely to actuarial thinking. An actuary would naturally estimate expected losses over the life of the assets and reduce the effective yield to a net effective yield, or at least build the provision out of the revenue; i.e., actuaries would build a liability out of a part of investment income.

The FASB is making similar changes to accounting for financial instruments. The FASB will require a loss allowance based on the expected losses over the lifetime of the asset. So maybe FASB thinks a little bit more like actuaries than the IASB. I wonder if the FASB would take this as a compliment.

The influence of actuaries can also be seen in the deliberations of the IASB as it reconsiders its *Conceptual Framework for Financial Reporting (CF)*. This document accompanies, and in effect precedes, the accounting standards. It is not itself a standard, and hence not accounting guidance, but rather “... it describes the objective of, and the concepts for, general purpose financial reporting.”² The thoughts expressed in the CF permeate the accounting standards. They can also directly significantly influence reporting entities’ accounting policies, especially in situations that are not specifically addressed by any accounting standard.

To show how actuarial thinking has infected the IASB, even in its most fundamental thinking about accounting concepts, I

point to how the definition of “asset” is changing. In the current CF, an asset:

“... is a resource controlled by the entity as a result of past events and from which future economic benefits are expected to flow to the entity.”³

In the May 2015 exposure draft for a revised conceptual framework (EDRCF), an asset:

“... is a present economic resource controlled by the entity as a result of past events. An economic resource is a right that has the potential to produce economic benefits.”⁴

Ordinarily actuaries would like accountants to make more use of expected values, especially as contrasted to best-estimates. In the context of the current CF, however, the word “expected” can be construed to mean that a resource is not an asset unless it is more-likely-than-not to be realized. This definition is prejudicial to recognition, as it could be construed that something that has less than 50 percent probability of being realized is not an asset. The revision to the definition is meant to be an improvement in the articulation of the concept, not a change in thinking about what constitutes an asset. It is nonetheless a change that actuaries welcome.

I could go on, but I think I have made the point. Accountants listen to actuaries and actuaries influence accounting concepts.

Is the reverse true? Do actuaries listen to accountants? In the next edition of *The Financial Reporter*, I will point out important ways that actuaries should think more like accountants. ■



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ENDNOTES

- ¹ <http://eifrs.ifrs.org/eifrs/bnstandards/en/2015/ifrs09.pdf>
- ² <http://www.ifrs.org/Current-Projects/IASB-Projects/Conceptual-Framework/Pages/Conceptual-Framework-Summary.aspx>
- ³ <http://eifrs.ifrs.org/eifrs/bnstandards/en/2015/framework.pdf>
- ⁴ http://www.ifrs.org/Current-Projects/IASB-Projects/Conceptual-Framework/Documents/May%202015/ED_CF_MAY%202015.pdf

Update on Regulatory Developments

By Francis de Regnacourt

This is a quarterly update on developments at the National Association of Insurance Commissioners (NAIC), the International Association of Insurance Supervisors (IAIS), the Federal Reserve and its affiliates, as well as other groups who may get involved in insurance supervision, with emphasis on those that may be important to members of the Financial Reporting Section. In general, this update does not report on Principle-Based Reserves, as they are usually covered elsewhere.

The Life Actuarial Task Force (LATF) met at the NAIC Summer Meeting in August. We report below on a few items that may be of interest to members of the Section. LATF initiated a review of Variable Annuity (VA) captives in conjunction with the VA Issues Working Group (VAIWG). Notably, the New York Department of Financial Services announced a plan to change its requirements for VACARVM for 2015.

On International Capital Standards (ICS), the NAIC sent its comments to IAIS on the Higher Loss Absorbency (HLA) proposal. The NAIC generally agrees with the proposal, but feels that the HLA “uplift” (increase over the capital requirement for non-G-SIIs) should be limited to 20 percent. There was relatively little activity over the summer.

Likewise, there were no major insurance-related developments from the Financial Stability Oversight Council (FSOC) over the summer.

LATF MEETING AT THE NAIC SUMMER MEETING, AUG. 13 AND 14, 2015 (AND SUBSEQUENT EVENTS)

We report here only the highlights of the meeting; complete details are in the minutes produced by the NAIC and available on their website. There was forward progress on many ongoing projects, but without notable landmarks; we do not report on those. We also touch on a few action items by LATF subsequent to the Summer Meeting.

New Valuation Mortality Table

Mary Bahna-Nolan (AAA Life Experience Subcommittee) presented proposed changes to the Valuation Manual to incorporate the proposed 2017 CSO table. LATF voted to adopt the 2017 CSO table and some proposed amendments. One point

to note: 2008 CSO will remain the valuation table for products with limited underwriting.

In September 2015, LATF adopted changes to the valuation manual to incorporate: (a) the 2017 CSO table, and (b) two options for calculating credibility for purposes of mortality margins. These items were required for AG 48 calculations at year-end 2015. While the credibility options were adopted, there is some concern among regulators that companies could pick and choose the method.¹ This issue will be discussed again in 2016.

Principle-based Reserves (PBR) Stochastic Exclusion Test (SERT)

Rich Daillak (AAA Life Reserves and Life Reinsurance Work Groups) presented an issue related to YRT reinsurance. The SERT criterion is based on the ratio of $(b - a) / c$ where:

a is the baseline reserve,

b is the worst case (highest reserve among 16 specified scenarios), and

c is the PV of net benefits in the baseline case.

He pointed out that YRT reinsurance can affect the ratio, especially if the c term is reduced significantly by the ceded portion. By the same token, aggregating a block of life business with YRT reinsurance assumed on another block could be used to exclude a block that would not otherwise have been excluded (“a lot of things can be labeled as YRT”). He suggested that looking at the outcomes (especially the percentage spread between a and b) with and without reinsurance is important to understand the results.

An Academy proposal for SERT amendments intended to address these issues was exposed for 45 days.

AG43/C3P2 Subgroup

This subgroup is working with VAIWG on a review VA captives. It wants to understand: (a) the motivation for VA captives, (b) how they are used, and (c) what options are available to address the perceived problems with VA reserving and capital requirements. Fred Andersen (MN) asked the subgroup to address his concern that during good times, when guaranteed living benefits are not in the money, reserves may not be high enough.

This initiative is part of an effort to make the treatment of captives more uniform than in the past. The insurance industry had come under some criticism for “regulator shopping” and even “shadow banking.”² The chairman mentioned that Long-Term Care captives would be addressed later as well.

Bill Carmelo (NY) stated that the New York Department of Financial Services planned to require a change of minimum assumptions for VA CARVM along the lines of the Amendment Proposal Form they had submitted in 2012;³ no specific timing was mentioned.

IUL Illustrations

While AG 49 was adopted earlier this year, there remain some issues to be worked out by the IUL Illustrations Subgroup:

- For policies with more than one index fund, if one fund has low charges and a low cap and another fund has higher charges and a higher cap, the illustration could be different than the sum of two separate illustrations if each fund were in a separate policy. Likewise, if the two funds have different expenses, the same disparity could occur.
- The treatment of bonuses is still unclear and needs to be defined further.

Other issues came up:

- Why not make AG 49 effective earlier?
- Are we spending too much time on IUL at the expense of broader illustration issues?

The consensus was to ask for input on enhancements to AG 49 and consider them all together. ■



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ENDNOTES

- ¹ The current adopted version stipulates that: (a) after selecting a methodology initially, a company may not change without commissioner approval, and (b) the same credibility method must be used for all the company's business.
- ² Moving business (through reinsurance captives, in this context) to reduce or avoid regulation or disclosure.
- ³ Essentially a significantly more adverse Standard Scenario. This change would affect only NY-domiciled and NY-licensed entities.

PBA Corner

By Karen Rudolph

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

The Joint American Academy of Actuaries Life Experience Committee and Society of Actuaries Preferred Mortality Oversight Group (Table Team) has finished work on the 2017 Commissioner's Standard Ordinary (CSO) Tables and the 2015 Valuation Basic Tables (VBT). All versions of these tables are available for download from http://www.naic.org/committees_a_latf.htm. The application of these tables to reserve and nonforfeiture values is captured in a series of amendment proposal forms found on the same site, under the heading Exposure Drafts. This article summarizes the characteristics of the new tables, the impact of the new tables on life insurance reserves and the schedule for implementation. The impact summary is excerpted from the June 2015 research report jointly sponsored by the SOA and American Council of Life Insurers and titled "Report on 2014 VBT/2017 CSO Impact Study – Considerations for Life Insurance Products."¹

TABLE CHARACTERISTICS

As in prior table developments, the creation of a valuation mortality table starts with data submitted by industry, which pro-

vides the basis for the valuation basic table, or VBT. Below are listed overall characteristics of the 2015 VBT mortality tables.

- Industry experience used as the underlying basis for the VBT tables is experience data from the SOA's Individual Life Experience Committee 2002-2009 study. This study represents more robust data and materially more exposure than was the case for the 2008 VBT development. For example, \$30.7 trillion exposure by amount contributed by 51 companies for the 2015 VBT versus \$7.4 trillion exposure by amount contributed by 35 companies for the 2008 VBT.
- The smoking classification includes experience from the industry's move into a broader tobacco underwriting classification (here the labels "smoking" and "tobacco" are used interchangeably).
- The relative risk (RR) versions of the 2015 VBT include the same number of tables as for the 2008 VBT (10 for nonsmokers, four for smokers), but for nonsmokers, the numbering system has changed to reflect changes to risk class relativities. In concert with this, the underwriting criteria scoring tool has also been updated. Companies having mapped their risk classes to the 2008 VBT RR tables using the original tool should revisit and update the mapping. The 2015 VBT RR nonsmoker tables are: RR50, RR60, RR70, RR80, RR90, RR100, RR110, RR125, RR150, and RR175. The smoker tables are RR75, RR100, RR125, and RR150. The RR100 table is the primary table for that risk class.
- The 2015 VBT array of RR tables does not include a limited underwriting table. The SOA Table Team expects to develop a table specific to guaranteed issue, simplified issue or pre-need products.
- The omega rate per 1,000 is 500 at attained age 112. There is no omega age for the VBT tables.
- Composite, smoker-distinct, and preferred structure versions of the valuation table are available.
- Within the preferred structure there are three nonsmoker classes and two smoker classes.
- The select and ultimate form of the basic tables was created using a 25 year select period format. Select mortality rates are provided for issue ages 18 through 95; however, the length of the actual select period will vary by gender and issue age. At younger and older issue ages, the actual select mortality rates are for a period less than 25 years.
- Rates for juvenile issue ages (0-17) are found only in the composite tables (male and female).



Table 1**2017 CSO Mean Reserve as Percent of 2001 CSO Mean Reserve**

Whole Life Product Overall Results

	t = 5	t = 10	t = 15	t = 20	t = 30	t = 40	t = 50
5-Class Ultimate	92%	93%	94%	95%	97%	98%	99%
2-Class Ultimate	90%	92%	93%	94%	96%	98%	99%
1-Class Ultimate	94%	95%	96%	97%	98%	99%	100%

2017 CSO Reserve as Percent of 2001 CSO Reserve

ULSG Product Overall Results

	t = 5	t = 10	t = 15	t = 20	t = 30	t = 40	t = 50
5-Class Ultimate	92%	90%	91%	91%	93%	94%	95%
2-Class Ultimate	89%	86%	87%	88%	90%	92%	92%
1-Class Ultimate	95%	93%	93%	94%	95%	97%	98%

- Each of the three available workbooks (composite, smoker-distinct, preferred structure) include the age nearest and age last mortality rates.

The VBT table is loaded for use as a statutory valuation table and presented to the regulators for consideration as a Commissioners Standard Ordinary valuation table, or CSO. In the case of the 2015 VBT, the Table Team improved the basic table to 2017 before applying loading, since 2017 is the year the table is first expected to apply to new life insurance issues. Below are listed overall characteristics of the 2017 CSO valuation mortality tables. Many of these are similar to the 2001 CSO valuation mortality tables.

- Composite (1-Class), smoker-distinct (2-Class), and preferred structure (5-Class) versions of the valuation table are available.
- Within the preferred structure there are three nonsmoker classes and two smoker classes.
- The select and ultimate form of the valuation table was created using a 25 year select period format. Select mortality rates are provided for issue ages 18 through 95; however, length of the actual select mortality rates will vary by gender and issue age. Any given issue age has at most 25 years of select mortality rates. At younger and older issue ages, the actual select rates are for a period less than 25 years.
- Rates for juvenile issue ages (0-17) are found only in the composite tables (male and female).
- The ultimate mortality rates per 1,000 grade to 1,000 at attained age 120, making the omega age of the valuation tables 121.

- Each of the three available workbooks (composite, smoker-distinct, preferred structure) include the age nearest and age last mortality rates.

- There are no plans to provide gender-blended versions of the 2017 CSO mortality table. Companies can create these versions from the gender specific rates as needed.

IMPACT OF THE 2017 CSO VALUATION TABLE ON RESERVES

Historically, when a new valuation table was developed, the actuarial team responsible for its development would evaluate its effect on a representative term and whole life product design. With the development of the 2015 VBT and 2017 CSO tables the approach in testing the impact was to use a “field test” of sorts. During first quarter 2015 participating companies evaluated beta versions of the new valuation tables. Complete results of this impact study can be found in the SOA report.

Overall, there are reductions in reserves with the introduction of the 2017 CSO valuation mortality table. For permanent products the reductions are in the range of 5 percent to 10 percent in early policy years, with the reduction grading off over years to maturity. For the ULSG product, the reduction does not grade off as steadily as for the whole life product reserves. Table 1 provides the ratio of 2017 CSO reserves to 2001 CSO reserves by product type and policy year for each of three table structures.

For term products the analysis looks at the ratio of reserves on the 2017 basis to reserves on the 2001 basis over the level premium period for a 20 year level premium term to age 95 product. Reserve reductions are in the range of 29 percent to 46 percent, depending on policy year and table structure. Table 2 provides

Table 2
2017 CSO Mean Reserve as Percent of 2001 CSO Mean Reserve
 20 Year Term Product Overall Results

	t = 5	t = 10	t = 15	t = 20
5-Class Ultimate	62%	60%	62%	64%
2-Class Ultimate	55%	54%	55%	60%
1-Class Ultimate	71%	65%	68%	70%
5-Class S&U	67%	67%	69%	64%

these ratios for the ultimate format of the tables and the 5-Class Select & Ultimate format.

For all three product types, the characteristics of the manner in which these reductions are distributed between gender, class and age are largely consistent.

- A greater reduction is attributable to male risks than to female risks.
- A greater reduction is attributable to non-tobacco risks than to tobacco risks.
- Within the 5-class structure, more reduction is evident in the residual class than in the preferred classes. This may be due to underlying mortality changes as well as the method used to split the classes.

The analysis also looked at several other aspects or characteristics of the new mortality tables for use in valuation.

- The select and ultimate table structure was found to produce a higher reserve than the ultimate only table structure.
- Reserves calculated using the more granular risk class structure (e.g., 5-Class) will aggregate to reserves calculated using the less granular risk class structure (e.g., 2-Class) if the aggregation is performed with the weightings used by the Table Team to create the more granular tables.
- The approach to loading the basic table for use in valuation was different than the approach used for the 2001 CSO and 1980 CSO tables. These earlier tables used a function of the reciprocal of the curtate expectation of life. The new table uses a percentage load that varies by attained age. Both approaches, however, produce a percentage load that decreases by age and an absolute load that generally increases with age. The impact study analysis demonstrates that relative margin has increased for reserves calculated using the 2017 CSO tables as compared to reserves calculated using the 2001 CSO tables.

As part of the impact study, companies also evaluated a beta version of the 2014 VBT. (The 2014 VBT was available for testing in beta version and was later improved one year to 2015

VBT. The 2015 VBT is the table available on the SOA's website). A VM-20 deterministic reserve calculation was used to calibrate the net premium reserve (NPR) against the deterministic reserve. Insights gained through this analysis will inform future definitions of NPR.

Using a one-year cohort of business the companies forecast the deterministic reserve as well as the NPR reserve on the 2001 CSO

and on the 2017 CSO. The majority of data submitted was for term and ULSG. Outcomes of this modeling exercise vary by contributing company, but even so, certain consistent relationships emerged.

- The 2017 CSO table provides a markedly lower NPR pattern (NPR (2017)) as compared to the NPR pattern under the 2001 CSO (NPR (2001)). This is particularly true for term products.
- Most term products tested show an NPR based on 2001 CSO in excess of the deterministic reserve by the middle of the level premium term period, while the NPR based on 2017 CSO is equal to or less than the deterministic reserve during the level premium term period. ULSG products, on the other hand, demonstrated deterministic reserves greater than NPR regardless of the valuation basis used in the NPR calculation.
- Where both the limited fluctuation credibility method and margins and the Bühlmann credibility method and margins were tested, the Bühlmann approach yielded a slightly lower modeled reserve amount.

The reader is encouraged to review the detail in the impact study report to appreciate and understand the results which are only summarized in this article.

IMPLEMENTATION OF THE 2015 VBT AND 2017 CSO TABLES

Historically, new valuation tables were first adopted by regulators as approved for use, then traveled through an individual state adoption process. The Standard Valuation Law as revised in 2009 (SVL) lays out requirements for a Valuation Manual, which in turn specifies appropriate minimum reserve standards. The Valuation Manual need only be updated or revised to acknowledge new mortality tables. The revision process requires only that the revision move through regulatory channels. Therefore, the individual state adoption process is unnecessary for states that have adopted the 2009 revisions to the SVL.

During the summer national meeting of NAIC, the 2015 VBT was adopted for use in VM-20. The corresponding margins, however, were still under discussion at that time. As this arti-

cle is written, the implementation of the 2017 CSO mortality table is specified in several amendment proposal forms, for consideration of the Life and Annuity Task Force. Assuming these proposals are adopted, the specific conditions outlined below will apply. The new tables will also impact aspects of Actuarial Guidelines XXXVIII (AG 38) and XLVIII (AG 48), and these are also included below.

VM-00

Following the operative date of the Valuation Manual, a company may elect to establish minimum reserves according to Appendix A (VM-A) and Appendix C (VM-C) for business otherwise subject to VM-20 requirements and issued during the first three years following the operative date of the Valuation Manual. A company electing to establish reserves under requirements of VM-A and VM-C may elect to use the 2017 CSO as the mortality standard following the conditions outlined in VM-20 Section 3.

VM-02

VM-02 outlines minimum nonforfeiture mortality and interest. Policies issued beginning Jan. 1, 2017 may use the 2017 CSO mortality table as basis for nonforfeiture values. Policies issued beginning Jan. 1, 2020 must use the 2017 CSO mortality table as basis for nonforfeiture values. The preferred structure tables are not allowed for use in determining nonforfeiture values.

VM-20

Section 3 specifies the methods and assumptions for the net premium reserve. Again, the company may use the 2017 CSO for policies issued beginning Jan. 1, 2017 and must use the 2017 CSO for policies issued beginning Jan. 1, 2020. This section also specifies the conditions for application of the 2017 CSO, that is which table structures are permitted when separate rates for smoker and nonsmokers are offered; when separate rates are not offered; and when gender-blended tables apply. Section 3 also outlines the conditions for using the preferred structure tables. These requirements parallel those found in Model 815 and Actuarial Guideline XLII, but apply to the 2017 CSO Preferred Structure tables.

VM-M

VM-M serves as an appendix to the Valuation Manual listing all applicable valuation mortality tables (Section 1) and industry experience tables (Section 2) for use in statutory valuations. Section 1 now includes a new paragraph H specifying the 2017 CSO mortality tables. Section 2 will include recognition of the 2015 VBT mortality tables as available for use as industry tables.

AG 38 8D

Language in AG 38 8D.a.2 for the Primary Reserve Methodology specifies the applicable version of the Valuation Manual is any version adopted by the full NAIC as of July 1 preceding the valuation date. Therefore, because the adoption of the

2015 VBT happened after July 1, 2015, for 2015 valuations of the AG 38 8D deterministic reserve, the 2008 VBT continues to be the required industry mortality table. The 2015 VBT will be the industry mortality basis for AG 38 8D deterministic reserve calculations performed for year-end 2016. An exception applies for companies using the 2008 VBT Limited Underwriting table; this table continues to serve as the industry table since there is no comparable table within the 2015 VBT family of tables.

AG 48

In the description of the Actuarial Method, AG 48 language specifies that prior to implementation of PBR the Actuarial Method shall include any amendments to VM-20 adopted by the Life Actuarial Task Force (LATF) no later than September 30th immediately preceding the year-end analysis required by AG 48. Because the 2015 VBT reached adoption in August 2015, the 2015 VBT is the industry mortality table for analysis performed as of year-end 2015. However, further action by the NAIC on the 2015 VBT margin table and the underwriting criteria scoring tool (for use in mapping a company's preferred risk classes) will be needed for the 2015 VBT to be considered fully operative. ■



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ENDNOTES

- ¹ See <https://soa.org/Research/Research-Projects/Life-Insurance/research-cso-impact-study.aspx> for the complete report.

Impacts of AG 48

By Keith Bucich, Francis Rahil and John Shaw

Actuarial Guideline XLVIII (AG 48) is effective as of Jan. 1, 2015 for XXX and AXXX1 business ceded to a captive reinsurer. This article provides an overview of AG 48 and an illustrative example of how AG 48 could impact asset requirements and related costs for companies that use captives to finance redundant XXX and AXXX reserves.

AG 48 introduces several new concepts for the ceding of this type of business to a captive reinsurer:

- a. Actuarial Method
- b. Primary Security
- c. Required Level of Primary Security
- d. Other Security

Using an illustrative universal life product with a secondary guarantee (ULSG), we will demonstrate each of the above concepts and its applicability as of Jan. 1, 2015. These new concepts will be compared to the same product prior to AG 48 being effective showing the difference between the pre AG 48 asset financing and the post AG 48 asset financing.

BACKGROUND

Due to perceived redundancies in statutory reserves for level premium term and universal life products with secondary guarantees (ULSG), some companies that sell these products have utilized a captive reinsurance financing structure. Using captives lessens reserve strain and frees up surplus that can be used to invest in new products or acquisitions, improve RBC ratios, or increase distributions to shareholders.

Currently, under one common financing structure, the assets supporting the first layer of statutory reserves ceded to the captive consist of securities such as bonds, stocks, and mortgages. This first layer of reserves is sometimes referred to as the economic reserve² and is generally based on best estimates around cash flows for benefits, expenses and premiums associated with the risk being reinsured, potentially with some added provision for risk. The assets supporting the economic reserve are usually held in trust or in a coinsurance funds withheld arrangement for the ceding company. The assets needed to support the remainder of the statutory reserve (often referred to as the redundant reserve) are financed using alternative means such as letters of credit. Before AG 48, there was no uniform guidance for the calculation of the economic reserve and no requirements for the types of assets that had to be held to support the economic reserve.

However, as of Jan. 1, 2015, reserve financing arrangements utilizing captives or special purpose vehicles are subject to AG 48, which prescribes the Required Level of Primary Security based on the Actuarial Method, a modified version of VM-20, and the asset classes that can be held as Primary Security.

ACTUARIAL GUIDELINE 48

On Dec. 16, 2014, the NAIC Executive Committee and Plenary adopted AG 48 effective Jan. 1, 2015. The purpose of the guideline is to establish uniform standards for XXX or AXXX reserve financing transactions utilizing captives or special purpose vehicles. AG 48 addresses the types and amounts of assets that need to be held as security under the reinsurance contract, on a funds withheld, trust, or modified coinsurance basis. Also, it establishes additional requirements for the actuarial opinion for reserve financing transactions. AG 48 applies to treaties entered into (or new business added to existing treaties) after Dec. 31, 2014.

AG 48 specifically applies to financing arrangements for term life insurance business subject to the Valuation of Life Insurance Policies Model Regulation (Model 830 or Regulation XXX) and universal life insurance business subject to Actuarial Guideline XXXVIII (AG 38 or AXXX). AG 48 is not limited to transactions involving a captive structure. Any reinsurer that does not

Table 1

	Year 5	Year 10	Year 15	Year 20	Year 25	Year 30
(1) UL CRVM	\$36,167	\$62,924	\$58,217	\$37,389	\$ 9,404	\$ 0
(2) AG 38	52,929	80,942	79,082	64,824	43,276	17,890
(3) Ceded reserve (2) - (1)	16,761	18,018	20,865	27,434	33,872	17,890
(4) Economic reserve ^a	0	759	4,684	10,388	18,534	11,382
(5) Retained reserve + economic reserve: (1) + (4)	36,167	63,683	62,901	47,777	27,938	11,382
(6) Amount financed/redundant reserve: (2) - (5)	16,761	17,259	16,181	17,046	15,338	6,508

Table 2

	Year 5	Year 10	Year 15	Year 20	Year 25	Year 30
(1) UL CRVM	\$36,167	\$62,924	\$58,217	\$37,389	\$ 9,404	\$ 0
(2) AG 38	52,929	80,942	79,082	64,824	43,276	17,890
(3) Ceded reserve: (2) - (1)	16,761	18,018	20,865	27,434	33,872	17,890
(4) Actuarial Method Reserve (Primary security)	7,957	2,803	8,050	14,442	21,055	12,551
(5) Retained reserve + Primary Security: (1) + (4)	44,124	65,727	66,267	51,831	30,459	12,551
(6) Amount financed/Other Security: (2) - (5)	8,805	15,215	12,815	12,993	12,817	5,339

meet one of the exemptions³ and reinsures policies with Regulation XXX/AG 38 reserves will be subject to the new rules.

For ULSG, when the secondary guarantee risk is ceded, the ceding company will typically take a reserve credit for the excess of the AG 38 reserve over the reserve for the base UL policy (UL CRVM). For transactions prior to AG 48, the company calculated an economic reserve and the redundant reserve. The economic reserve calculation was based on secondary guarantee claims and reinsurance premiums. The redundant reserve was equal to the total ceded reserve less the economic reserve.

Table 1 is an illustrative example for a transaction prior to AG 48 for a ULSG product. The economic reserve in this example is a gross premium valuation reserve using moderately adverse assumptions. The example also assumes that the assets held by the captive would qualify as Primary Security assets.

In this pre AG 48 example, for policy year 10 the ceding company would take a reserve credit of 18,018 and the assets for the economic reserve of 759 would be held in a funds withheld account or trust arrangement. The redundant reserve of 17,259 would be financed by a letter of credit or other financing vehicle.

For treaties subject to AG 48, the assets required (Primary Security) would no longer be the amount necessary to back an economic reserve based on the secondary guarantee claims and reinsurance premiums but would be based on the Actuarial Method defined as a modified VM-20 reserve.

Per VM-20, the reserve is the higher of the net premium reserve, deterministic reserve, and stochastic reserve. The net premium reserve is a formulaic reserve using prescribed assumptions that is meant to serve as a floor to the more principles-based components of VM-20. The deterministic reserve is a gross premium valuation using prudent best estimate assumptions. The stochastic reserve is a CTE 70 calculation based on the greatest present

value of accumulated deficiencies concept similar to Actuarial Guideline 43 (VACARVM or AG 43).

The modification to the VM-20 reserve required by the Actuarial Method is a factor applied to the net premium reserve. The factors (which are all less than or equal to 1.0) vary by issue age, gender, and smoking class. The reserve requirement for a ULSG product per AG 48 is the maximum of (i) the factor times the net premium reserves, (ii) the deterministic reserve, and (iii) the stochastic reserve. The VM-20 items are calculated on a gross of reinsurance basis. The primary security requirement for the captive is equal to the modified VM-20 reserve less the retained reserve (UL CRVM).

A key component of the illustration is calculating the Actuarial Method Reserve according to VM-20. The calculation of the VM-20 reserve will likely require companies to upgrade modelling capabilities to allow stochastic projections of both assets and liabilities. Sensitivity analysis of key assumptions will also be required. Processes and controls around assumption setting and model governance will need to be strengthened as valuation moves from formulaic reserves using prescribed assumptions to a principles-based approach using company specific assumptions.

Table 2 is an illustrative example for the transaction considered above subject to AG 48.

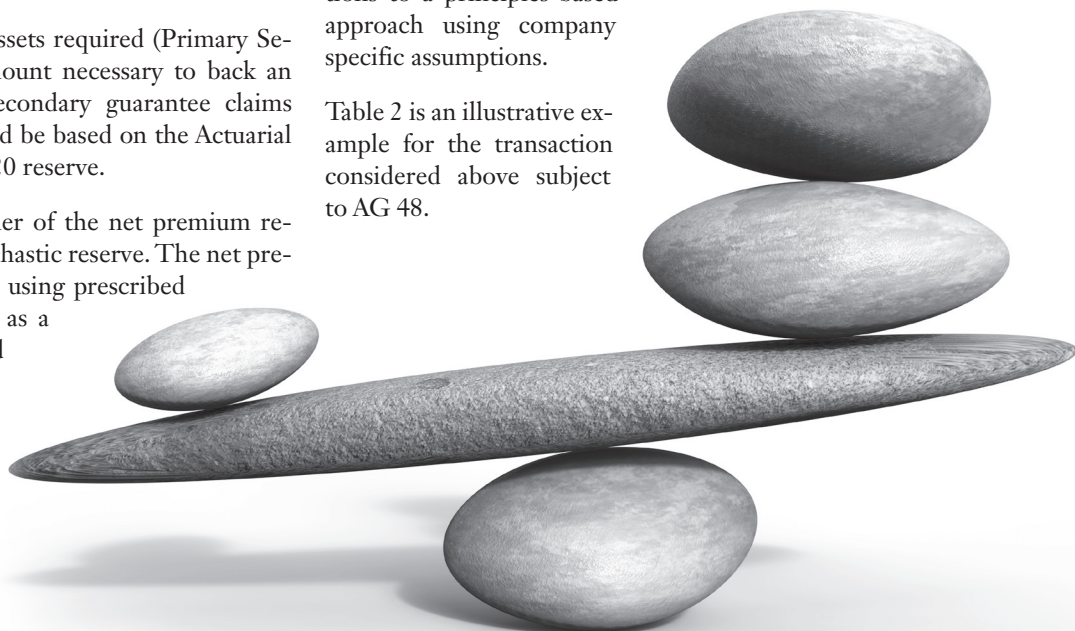


Table 3

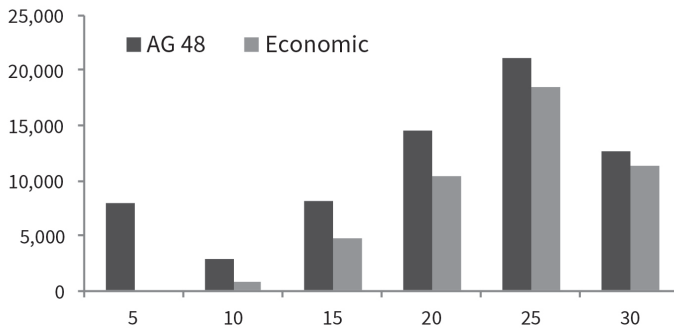


Table 3 compares the asset requirements based on a pre AG 48 economic reserve and the Primary Security requirements per AG 48.

In this example, with AG 48, more of the reserve will have to be backed by real assets and less of the XXX/AG38 reserve can be financed.

Table 4

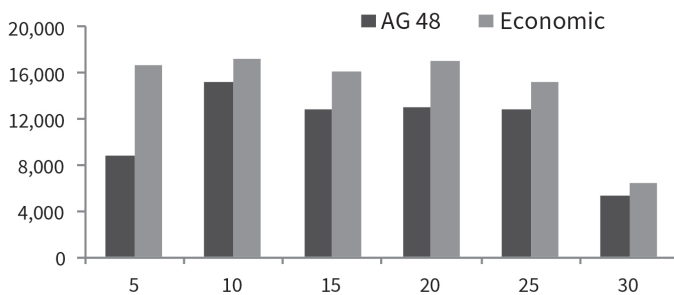


Table 4 compares the amount of assets financed using other securities (redundant reserves) based on an economic reserve (as defined for this illustration) and the Primary Security requirements per AG 48.

OTHER CONSIDERATIONS

In addition to specifying the Amount of Primary Security and Amount of Other Security requirements for captive transactions, AG 48 addresses the types and amounts of assets that need to be held as security under the reinsurance contract, on a funds withheld, trust, or modified coinsurance basis. The requirements differ for Primary Security and Other Security assets.

Primary Security assets are the assets backing the reserve calculated by the Actuarial Method per AG 48. Other Security assets are the assets allowed to back the excess of the AG 38 reserve or Regulation XXX reserve over the AG 48 reserve.

For Primary Security assets, allowable assets include cash and SVO-listed securities meeting certain criteria. For funds with withheld and modified coinsurance reinsurance arrangements, allowable assets include commercial loans in good standing of CM3 quality and higher, policy loans, and derivatives used to support and hedge liabilities pertaining to the actual risks in the policies ceded pursuant to the reinsurance arrangement.

AG 48 defines Other Security assets as any asset acceptable to the Commissioner of the ceding insurer’s domiciliary state, including any asset meeting the definition of Primary Security.

AG 48 also requires the ceding company’s appointed actuary to certify that Primary Security funds are held in an amount at least equal to the Required Level of Primary Security and that Other Security funds are held in an amount at least equal to the remaining portion of the reserve that is financed.

CONCLUSION

While offering standardization of captive treatment in the U.S. life insurance industry, AG 48 also brings about changes to the levels of captive funding as well as the operational complications associated with the newly required AG 48 calculations. Companies need to be aware that the economic and administrative costs of funding XXX and AG 38 reserve redundancies have likely risen in the AG 48 environment. ■



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Society of Actuaries New Learning Tool DECs

By Kerry Krantz

Four subject matter experts, actuaries Alberto Abalo, Mike Harrington, Dave Neve, and Andy Rarus, have developed what we hope will be a new Society of Actuaries (SOA) education tool using the Khan Academy educational website durable educational component (DEC) approach.

A DEC is online training with a whiteboard video lecture between 10-15 minutes in length (think of these as 10 to 15 minute audio-video class lectures). As part of principle-based reserve (PBR) implementation, the NAIC has developed a charge related to pre-implementation and training. Included is company outreach. Four state regulators, Andy Rarus, Craig Chupp, Pete Weber, and I, have worked on this charge. Andy recruited the subject matter experts to develop an initial DEC on the subject of PBR net premium reserve. Kristine Buelow, Instructional Specialist at the Society, and Sherri Blyth, Senior Instructional Designer, worked with the four actuaries to develop this DEC.

The concept of a principle-based net premium reserve was initially proposed by the American Council of Life Insurance Companies (ACLIC) actuaries to create a “floor” that could be the basis for a tax reserve. During the Impact Study designed and conducted by Towers-Watson, a sample spreadsheet was shared with the company actuaries participating in the study. This DEC will provide a demonstration of how the text of the Valuation Manual Section (VM-20) defining a net premium reserve can be applied to a specific product. Included (and stored on an SOA web page) will be a program narrative and Excel spreadsheet.

The component begins with a welcome message. After Andy identifies the events that led to the development of the DEC, the next slide (see Exhibit 1) lists the objectives. “This micro-course is designed for regulators and actuaries working on VM-20 reserve implementation within their companies. It discusses the importance of the principle-based approach, assumptions, and the net premium reserve (NPR) calculation.” Upon completion of this course, the viewer will be able to discuss the applicability of VM-20 NPR requirements to a company’s term insurance business and calculate the NPR for a representative term policy.

EXHIBIT 1

The screenshot shows a web browser window with the URL learning.soa.org/ikview/CustomCodeBehind/base/courseware/scorm/scorm12/courseframe.aspx. The page displays a slide titled "Objectives". On the left is a "Table Of Contents" with items like "Welcome Message", "DEC Objectives", "PBR", "Learn More About PBR", "The Importance of Principle-Based ...", "Areas of Valuation Assumptions", "The NET Premium Reserve", "NPR Calculation Example", "Virtual Classroom", "Knowledge Check", "Quiz Question 1", and "Quiz Question 2". The main slide content features a photograph of three people in a professional setting. Below the photo, the text reads: "This micro-course overview is designed for regulators and actuaries working on the VM-20 reserve implementation within their companies. It discusses the importance of the principle-based approach, assumptions and the net premium reserve (NPR) calculation. Upon completion of this course, you will be able to:" followed by two bullet points: "• Discuss the applicability of VM-20 NPR requirements to a company's term insurance business / rationale for a reserve floor." and "• Calculate the NPR for a representative term policy."

The next slide explains the importance of PBR to consumers, improving the process of risk assessment, and the valuation system. After that is a slide discussing areas of valuation assumptions: prescribed, stochastically modeled, and prudent estimate. The next slide discusses the FIT concern that led to an NPR reserve. The DEC takes a four step approach. (There are three parts (a, b, and c) to step 3.) These steps are based on a framework presented by Karen Rudolph featured in issue 95 of *The Financial Reporter*.

After this introduction, a slide displaying a monitor has a link to the video narrated by Albert. He takes the viewer step by step (1, 2, 3a, 3b, 3c, and 4) through the spreadsheet (see Exhibit 2) adapted from Tim Cardinal’s NPR calculator.

EXHIBIT 2

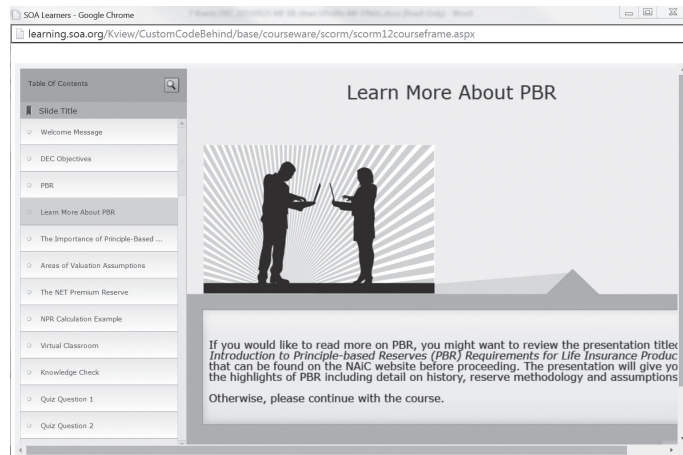
The screenshot shows an Excel spreadsheet titled "VM-20 Principle Based Reserving: Calculating the Net Premium Reserve for Term Insurance". The spreadsheet has columns for "Step" and "Description". The content is as follows:

Step	Description
1	Facilitate whiteboard talk of a net premium reserve calculation for 20 year level premium term insurance policy with insurance coverage to age 95. Example adapted from Tim Cardinal's NPR calculator
2	Policy characteristics
3	20YR male nonsmoker, issue age 35, \$1M face amount
4	Contents
5	Step 1: Determine valuation assumptions
6	Step 2: Calculate adjusted gross premiums
7	Step 3a: calculate valuation net premiums
8	Step 3b: Check post-level period net premium complies with VM-20 constraint
9	Step 3c: Revise valuation net premiums
10	Step 4: Calculate Terminal NPRs
11	(steps based on framework in PBA Corner article by Karen Rudolph, featured in issue 95 of the "Financial Reporter")

The next slide provides the viewer the option to “Check Your PBR Knowledge.” If one is familiar with PBR, one can skip the assessment that follows. If one fails the multiple choice assessment (e.g., only three of five correct), one can click continue to

a slide (see Exhibit 3) that recommends an NAIC presentation titled “Introduction to Principle-based Reserves (PBR) Requirements for Life Insurance Products” that can be found on the NAIC website.

EXHIBIT 3



A list of resources is provided on the next slide. It includes a link to Karen Rudolph’s PBA Corner article. The next slide has the names of the regulators and subject matter experts. The final slide asks the viewer to stay tuned for upcoming principle-based reserve DEC releases. ■



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Incredible, Unbelievable

By Henry Siegel

I recently was at a session where the person speaking was encouraging the listeners to attend another session with excellent presenters. “The speakers are incredible,” he said. On another occasion I was reading a newspaper review of a restaurant. “The food is unbelievably good!” the review read.

Tell me, why should I go listen to a speaker who is not credible? Why should I try food with quality that is unbelievable? Why is our use of language so sloppy? It makes conversations so much more difficult, particularly when English is not the first language of all the participants.

I have run into this problem recently at the accounting discussions where the term “participating contract” has been subject to various meanings depending on who is speaking. As used by the Financial Accounting Standards Board (FASB), participating contracts are normally those contracts traditionally offered by mutual insurers. Another subset of these policies consist of those policies that were originally issued by a mutual, but are now contained in a closed block in a demutualized company. Both of these types of contract are accounted for under the former FAS 120 since their dividends are based on the contribution principle.

At the International Accounting Standards Board (IASB), however, participating contracts can mean not only those types of contracts, but variable products, contracts where the distribution principle is other than the contribution principle and contracts where the only distribution is excess interest, such as for fixed deferred annuities. The IASB has been struggling for most of the year to find the correct accounting for this mixed group of policies types. For a variety of reasons having to do with the characteristics of the types of contract, the board has moved from the general principle of having the liability simply equal to the present value of future cash flows to using a variable fee approach for some contracts and not for others. The good news is that it appears that this quarter the IASB has finally nearly reached a conclusion on how to handle these issues.

At the same time, the IASB has had difficult conversations on how to handle the implementation of the new IFRS 9 on Financial Instruments when the Insurance Contracts standard won't be effective for a period of time afterwards. The European companies were particularly insistent that some deferral of im-

plementation of IFRS 9 be provided so that insurers won't have to implement IFRS 9 now, which would result in a mismatch between asset and liability measurement.

IASB MEETING IN JULY

The discussion in July centered on solutions to implementation of IFRS 9 since the insurance contracts standard will not be finished by then. The alternative discussed at this meeting was to effectively allow insurers to continue to use the existing IAS 39 accounting until the insurance standard is implemented. This would be accomplished by amending the existing IFRS 4 to allow the mismatch to be shown in Other Comprehensive Income (OCI).

The details of this proposal were confirmed at the September meeting and are shown below. There were no discussions about insurance in August.

IASB MEETINGS IN SEPTEMBER

The IASB discussed insurance in four separate meetings in September. The first two were the continuation of the discussion from July regarding IFRS 9 and IFRS 4. The last two had to do with accounting for participating contracts.

Different effective dates of IFRS 9 and the new insurance contracts standard

After reviewing the results of outreach feedback that the staff had obtained following its July meeting, the Board decided to offer two alternative approaches for dealing with IFRS 9, the Overlay Approach and the Deferral Approach. The former was the alternative discussed in July allowing the effect of any change from IAS 39 to IFRS 9 to be shown in OCI. The latter would effectively allow deferring implementation of IFRS 9 until the insurance contracts standard takes effect. The details of the two alternatives follow as described in the September IASB Update.¹

“The Overlay Approach

Financial assets eligible for the overlay adjustment (eligible financial assets)



At this meeting, the IASB continued to discuss the overlay approach which it had tentatively decided to propose at its July meeting. The overlay approach would permit an entity to adjust profit or loss and other comprehensive income (OCI) to remove from profit or loss the effect of newly measuring financial assets at fair value through profit or loss (FVPL) in accordance with IFRS 9. The IASB tentatively decided that:

- a. a reporting entity should be permitted to make an overlay adjustment in respect of financial assets that meet both of the following criteria:
 - i. the financial assets are designated by the entity as relating to contracts that are within the scope of IFRS 4 *Insurance Contracts*; and
 - ii. the financial assets are classified as FVPL in accordance with IFRS 9 and would not have been classified as FVPL in their entirety in accordance with IAS 39 *Financial Instruments: Recognition and Measurement*.
- b. an entity may change the designation of financial assets as relating to contracts within the scope of IFRS 4 only if there is a change in the relationship between the financial assets and contracts that are within the scope of IFRS 4.

Redesignation of financial assets

The IASB tentatively decided that:

- a. an entity should be permitted to apply the overlay approach prospectively to financial assets when the eligibility criteria are met;
- b. an entity should be required to cease applying the overlay approach when financial assets no longer meet the eligibility criteria. Any accumulated balance of OCI relating to the overlay adjustment should be immediately reclassified to profit or loss (recycled)."

The Board also made decisions having to do with transition rules, presentation and disclosure. One key transition rule is that only entities for which insurance activities are predominant, using liabilities as a yardstick, should be allowed to use this approach. For more details on this and other rules, consult the IASB update cited previously.

The Deferral Approach

The IASB also discussed details of a new deferral approach. Under this approach, an entity would be allowed to defer the effective date of the new IFRS 9 until it implements the new insurance contracts standard. Again, only entities for which insurance is the predominant liability type would be allowed to do this. The IASB doesn't want banks with small insurance businesses to take advantage of this provision.

Seven IASB members voted to allow the deferral approach and seven IASB members voted against it. After the meeting, the chairman of the IASB decided to use his tiebreaking vote in favor of the deferral approach.

The vote on this issue was largely geographic with European members voting in favor of allowing deferral and other members voting against it. There was a serious concern that if deferral were not allowed, the Europeans would not adopt IFRS 9.

An exposure draft of these modifications to IFRS 4 should be forthcoming by the time you are reading this article. For more details on what was tentatively agreed upon, consult the IASB update.

Accounting for Participating Insurance Contracts

The IASB resolved at this meeting most of the remaining issues regarding accounting for participating contracts, particularly for variable type contracts. The IASB tentatively decided that if an entity uses the variable fee approach to measure insurance contracts and uses a derivative measured at fair value through the profit and loss statement to mitigate the financial market risk from the guarantee embedded in the insurance contract, as is often the case in the U.S. for certain variable annuities, the entity would be permitted to recognize in profit or loss the changes in the value of the guarantee embedded in an insurance contract, determined using fulfillment cash flows. This would only be allowed, however, if there's an accounting offset between the value of the guarantee and the value of the derivative. For details, consult the IASB Update for September.

Next steps

The IASB will continue to consider the remaining outstanding items on insurance contracts at future meetings, and is aiming to issue a new Standard in 2016.

For the next year, then, the IASB and staff will be drafting the final standard to be adopted probably in the fourth quarter of 2016. During this period, it's likely that many detailed questions will arise that will require actuarial assistance to answer. After all,

Insurance Accounting is too important to be left to the accountants! ■



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ENDNOTES

¹ <http://media.ifs.org/2015/IASB/September/IASB-Update-September2015.pdf>

FAIR VALUE FOR VARIABLE ANNUITY GUARANTEES

By Leonard Reback

The Financial Accounting Standards Board (FASB) met in September to discuss targeted improvements for accounting for long-duration insurance contracts under US GAAP. At the meeting they made some key tentative decisions regarding guarantees on certain non-traditional contracts. They also began discussing certain aspects of accounting for participating traditional contracts.

FASB tentatively decided that certain guarantees on certain non-traditional insurance contracts should be reported at fair value. According to the discussion papers for the meeting, the affected contracts would be non-traditional contracts which “allow the policyholder to direct all or a portion of his or her account balance into an investment that passes the risks and rewards of holding that investment to the policyholder.” Clearly that includes variable or unit-linked contracts. It is not entirely clear whether other contracts, such as equity indexed contracts, would be impacted. Guarantees within such contracts that would be impacted would be those which have “other-than-nominal capital market risk.” Guarantees would be presumed to have other-than-nominal capital market risk if “the benefit varies significantly in response to capital market volatility.”

It remains to be seen exactly how the criteria will be worded in a formal document, but it was clear from the discussion that minimum interest guarantees would not be considered to have other-than-nominal capital market risk. However, many variable annuity guarantees would be covered, including guaranteed minimum death benefits (GMDB) and guaranteed minimum income benefits (GMIB), currently accounted for under SOP 03-1. Guaranteed minimum withdrawal benefits (GMWB), including lifetime withdrawal guarantees, and guaranteed minimum accumulation benefits (GMAB) would also be covered, although these are often accounted for at fair value today as embedded derivatives. The decision also appears to cover other guarantees, such as no-lapse guarantees on certain variable universal life contracts.

The change in fair value for the affected guarantees would generally be reported in net income. However, FASB deferred a decision on whether the impact of changes in non-performance risk (or own credit risk) should be reported in net income or in other comprehensive income (OCI). If they decide to report

the impact of changes in non-performance risk in OCI, this would apply equally to guarantees covered by this decision that are considered embedded derivatives under current GAAP. So even though such guarantees would continue to be reported at fair value, there could be a change to the income statement presentation if FASB ultimately decides to use OCI for changes in non-performance risk.

Fair value for the covered guarantees may be more volatile than existing accounting treatment, such as SOP 03-1. But there are a number of benefits to this decision. Various forms of variable annuity guarantees will be treated consistently, regardless of technicalities around whether they meet specific embedded derivative criteria. FASB also noted that certain guarantees, such as lifetime withdrawal benefits, are accounted for differently by different companies, so this decision would provide consistency. Also, this decision is likely to facilitate hedging of guarantees currently accounted for under SOP 03-1. Hedging instruments are generally reported at fair value, with changes in fair value reported in net income, which is not consistent with SOP 03-1. So under existing GAAP, hedged guarantees often create accounting volatility, even though economic risk is reduced, due to this mismatch in accounting treatment. So this decision would alleviate that issue. ■



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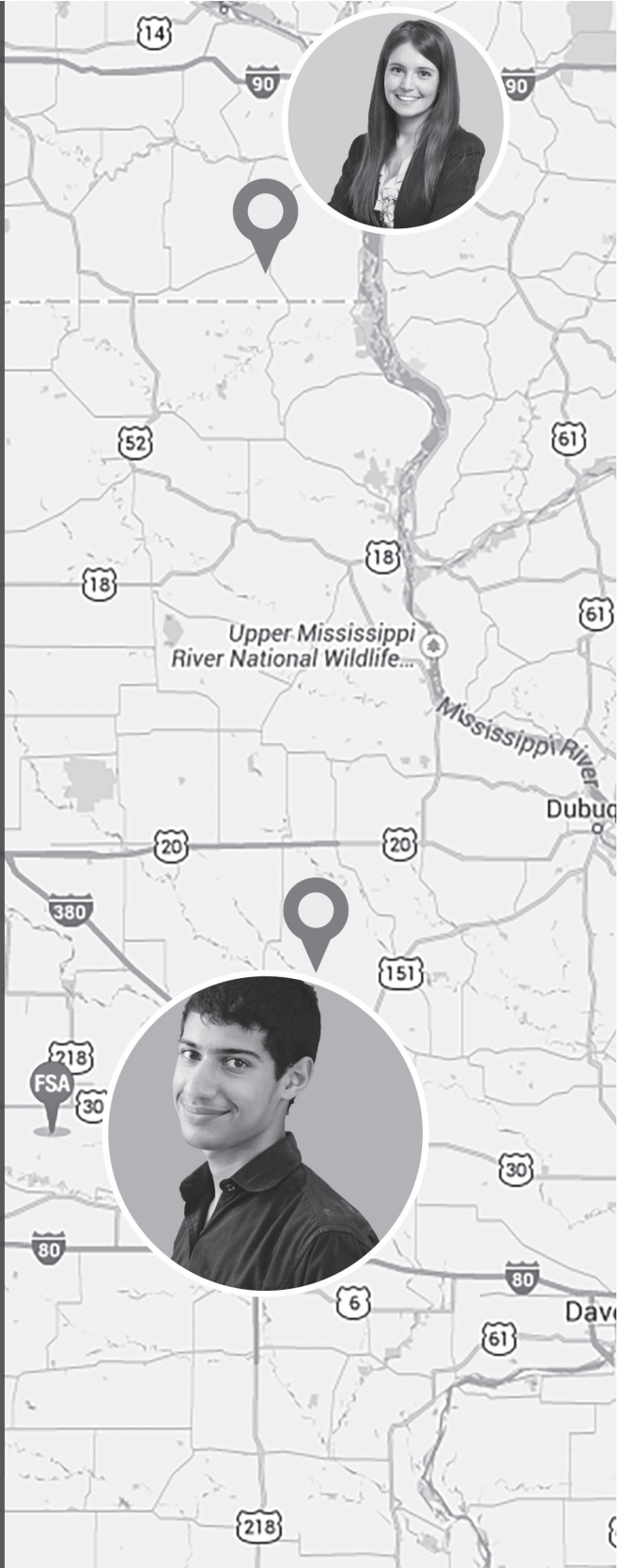
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