

# The Financial Reporter

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## The Mini-Series Continues

By Henry Siegel

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At the International Conference of Actuaries in Washington, D.C., International Accounting Standards Board (IASB) member Pat Finnegan likened the insurance contracts project to year 10 of a mini-series on TV. EY partner Jennifer Weiner agreed, although she noted that, as in “The Good Wife,” the Financial Accounting Standards Board (FASB) had just killed off one of the main characters.

If you want to know more about the FASB’s actions, you should read Lenny Reback’s article on page 22. I’m going to continue with the main IASB plot lines.

### JANUARY AND MARCH IASB MEETINGS

It’s clear that both the IASB and FASB have listened carefully to the comments they received on their recent Exposure Drafts (EDs). In January, there was a joint review of those comments during which the staff went over the key comments on both, and some of those comments had considerable acceptance from both boards.

In their March 18 meeting, the IASB took the first steps to reflect the comments, agreeing to two basic changes to the ED that have broad support. These tentative decisions only apply to non-participating contracts at this point.

- 1) The IASB tentatively agreed to two changes to the unlocking of the contractual service margin (CSM).

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## Chairperson's Corner THE VALUE OF YOUR INVOLVEMENT

By Bill Sayre

As I noted last quarter, the Financial Reporting Section Council (FRSC) was having our annual face-to-face meeting in Chicago. We were fortunate to have the participation of most of the Council and the meeting was very successful. One of the highlights of the meeting is that we have decided to significantly increase our research budget after a few years of somewhat decreased funding in research-related areas. Our concern in recent years stemmed from the reality of lower financials we have been experiencing as a section. Nevertheless, we reaffirmed that priority, cutting edge research matters to the area of financial reporting as that is part and parcel of who we are. We are looking to our section members to help us spend the allocated money (how often are you freely afforded that opportunity?), so please submit your great ideas for research to me or any others on the FRSC.



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What is a podcast? Believe it or not, a few of us actually needed to clarify that at our meeting. We had previously attempted to place a few podcasts on the section web site last year but discontinued the practice since they were not receiving many "hits." As such, we were somewhat surprised that a large number of respondents to the section survey suggested they wanted us to offer podcasts again. We are exploring new ways we can do that – perhaps with summaries of sessions at meetings or an "executive summary" overview of new research in tandem with the release of the report.

*The Financial Reporter* is an effective tool to convey articles of interest to our section members, and we are well served as a section by it. Where it falls short is in communicating anything that is immediately significant as 2-3 months are required to pull together each quarterly submission. We are exploring an e-mail newsletter which will supplement *The Financial Reporter* and identify issues where a more timely communication (and potential response) is essential. Hopefully you will have seen our initiative in this area by the time you read this.

The three areas discussed above are connected by a common thread – we will increase the effectiveness of our efforts with your involvement. Your ideas and your reactions will help us expand our reach successfully. Please consider how you can be more involved in the section and let us hear from you! ■



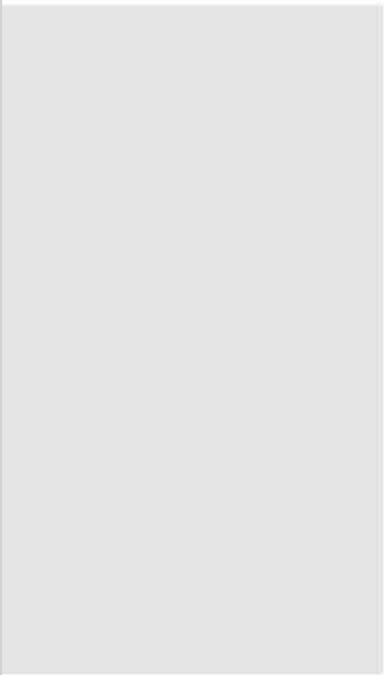
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They agreed that the CSM should be unlocked for changes to assumptions about future cash flows as proposed in their ED. In recognition of a concern expressed by many, however, they also agreed that:

- a) If there have been losses recognized due to unfavorable changes to assumptions about future experience that eliminate the CSM and
- b) There is then a favorable change to the same set of assumptions that would create a gain,

the effect of that change can be taken into earnings until the previously recognized loss is recaptured. It appears that the assumption changes do not have to be to the same assumption (e.g., a mortality loss could be followed by an expense gain) so long as they are on the same portfolio.

Without this change, the entire effect of the second change would be absorbed into the CSM. Many in the industry urged the board to make this change and it agreed.

The IASB further agreed that changes to the risk adjustment related to future coverages and services, either an increase or decrease, should be absorbed by the CSM so long as the CSM does not become negative.

The clear intent of the board is that the entire effect of changes to assumptions about the future should not be recognized in current earnings but, as with a gain

at issue, should be recognized over the lifetime of the portfolio.

- 2) The IASB also ratified the use of other comprehensive income (OCI) to show the effects of changes in discount rates on liabilities. It also agreed to change the ED so that the use of OCI will be optional since there are times (e.g., for variable contracts) where the use of OCI would produce an accounting mismatch. Many comment letters had urged the board to make OCI optional and, while there remain three members of the board who oppose the use of OCI at all, this change had broad support.

The board recognized that these decisions raised additional questions. At what level must the option to use OCI be decided? For instance, did the decision need to be at the portfolio level or could it be at something higher short of the entire entity? Could a reporting entity use OCI for policies issued from 2010 to 2012 and not use OCI for policies issued after that if the policies are otherwise identical?

The board also recognized that questions would arise about whether a reporting entity could change from using OCI to not using OCI (or vice versa) and if so, under what circumstances. One solution that has been suggested is that a change be allowed only upon a change of control or a significant change in investment policy. Detailed proposals on these and other issues will be worked up by staff for discussion at a future meeting.



The board also agreed that in light of the use of OCI, additional information should be provided in disclosures. They tentatively agreed to the following, according to the IASB Update on the discussion:

- i. For all portfolios of insurance contracts: an analysis of total interest expense included in total comprehensive income disaggregated at a minimum into:
  1. the amount of interest accretion determined using current discount rates;
  2. the effect on the measurement of the insurance contract of changes in discount rates in the period; and
  3. the difference between the present value of changes in expected cash flows that adjust the contractual service margin in a reporting period when measured using discount rates that applied on initial recognition of insurance contracts, and the present value of changes in expected cash flows that adjust the contractual service margin when measured at current rates.
- ii. In addition, for portfolios of insurance contracts for which the effect of changes in discount rates are presented in other comprehensive income: an analysis of total interest expense included in total comprehensive income disaggregated at a minimum into:
  1. interest accretion at the discount rate that applied at initial recognition of insurance contracts reported in profit or loss for the period; and
  2. the movement in other comprehensive income for the period.”

These disclosures, while reasonable, could be quite complicated to implement, depending on the level at which they must be shown.

## NEXT STEPS

The IASB intends to consider the main issues relating to insurance contracts revenue at its April meeting. It will also consider issues raised in the response to the 2013 ED, other than the five issues, on which the board did not specifically request comments.

The major outstanding issue on which the board will have to reach a consensus remains the treatment of participating contracts. Many in the industry have suggested that the board eliminate the “mirroring” pro-

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“The major outstanding issue on which the board will have to reach a consensus remains the treatment of participating contracts.”

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posal included in its ED. The expected timing for this discussion is not known.

Whatever the board decides to do on participating contracts, it is likely to be quite complex, given the variety of participating contracts in existence. This makes it all the more necessary to remember.

***Insurance accounting is too important to be left to the accountants!*** ■

### ENDNOTES

<sup>1</sup> The FASB had a locked-in CSM in its ED although it will probably change this.



# Unintended Consequences of FAS 113 Reinsurance Accounting for Long Duration Contracts

By Rod Bubke, Katie Cantor, and Larry Gulleen



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**F**inancial Accounting Statement (FAS) 113,<sup>1</sup> “Accounting and Reporting for Reinsurance of Short-Duration and Long-Duration Contracts” provides guidance on how to account for reinsurance transactions that meet certain risk transfer requirements. It was effective for fiscal years beginning after Dec. 15, 1992. In particular, FAS 113 requires that the cost of reinsurance (CoR) be recognized “over the remaining life of the underlying reinsured contracts if the reinsurance contract is long duration” (FAS 113 Paragraph 26<sup>2</sup>). Certain approaches used by companies to satisfy this requirement for long duration contracts can introduce unintended impacts that are discussed in this article.

Prior to the adoption of FAS 113, many companies recognized reinsurance by reporting deferred acquisition costs (DAC) on a net basis (i.e., capitalized net acquisition costs and amortized DAC using estimated gross profits (EGPs) net of reinsurance) and therefore did not establish an explicit CoR asset or liability to recognize the reinsurance cost over the product lifetime. These companies pointed to item e) in paragraph 23 of FAS 97,<sup>3</sup> which states, “Estimated gross profits ... shall include estimates of the following elements, ... e) Other expected assessments and credits, however characterized.” With the exception of excess ceding allowances, this approach treats the reinsurance cash flows as other net costs in EGPs. This will be referred to as Method 1 in this article.

FAS 113 stated that a ceding company’s balance sheet should be presented on a gross basis. To this point, Method 1 resulted in DAC (and liabilities) being reported on a net basis. After FAS 113 was adopted, many companies began reporting DAC on a gross basis and establishing an explicit CoR asset (or liability). This will be referred to as Method 2 in this article.

FAS 113 notes that the CoR shall be recognized over the life of the underlying contracts, but it does not specify how. Paragraph 20 of FAS 113<sup>4</sup> states “Reinsurance receivables shall be recognized in a manner consistent with the liabilities (including estimated amounts for claims incurred but not reported and future policy benefits) relating to the underlying reinsured contracts.” FAS 113 (Paragraph 26<sup>5</sup>) goes on to say “The assump-

tions used in accounting for reinsurance costs shall be consistent with those used for the reinsured contracts.” For FAS 97/120 products, these two statements have commonly been interpreted to recognize the CoR in a similar manner as DAC amortization, generally as a function of direct (gross of reinsurance) EGPs.

Under Method 2, the CoR asset at each period can be defined as:

$$\text{CoR Asset}_t = \text{CoR}_{t-1} * (1 + i) + \text{Reinsurance Cash Flows (Rein CF)}_t - \text{Amortization}_t$$

Where:

$$\text{Rein CF}_t = \text{Reinsurance premiums}_t - \text{Reinsurance recoveries}_t - \text{Reinsurance expense allowances}_t$$

$$\text{Amortization}_t = \text{AR} * \text{Gross Profits}_t \text{ and}$$

$$\text{Amortization Rate (AR)} = \text{Present value of (Rein CF)} / \text{Present value (Direct EGPs)}$$

The present values include both actual cash flows to date and future expected cash flows (similar to the “k-factor” calculation used in DAC).

Let’s look at an example under Method 2. Please note the values in the examples shown are simplified and were created for illustrative purposes.

## METHOD 2 EXAMPLE – TIME PERIOD 1

A cohort of FAS 97 policies are reinsured on a 90 percent coinsurance basis (values in \$millions):

$$\begin{aligned} \text{Rein CF}_1 &= 0.09 \\ \text{PV (Rein CFs)} &= 0.20 \\ \text{Direct EGP}_1 &= 1.0 \\ \text{PV (Direct EGPs)} &= 20.0 \\ \text{Interest Rate} &= 4\% \end{aligned}$$

At the end of year 1, we have:

$$\begin{aligned} \text{AR} &= \text{PV (Reins CFs)} / \text{PV (Direct EGPs)} \\ &= 0.20 / 20.0 = 1.0\% \end{aligned}$$

$$\begin{aligned} \text{CoR Asset}_1 &= \text{CoR}_0 * (1 + i) + \text{Rein CF}_1 - \text{CoR} \\ \text{Amortization}_1 &= [0 * 1.04] + .09 - [1\% * 1.0] = \$0.08 \end{aligned}$$



## METHOD 2 EXAMPLE – TIME PERIOD t

We now have the following values (\$millions):

PV (Total Rein CFs) = (11.5)

PV (Total Direct EGPs) = 0.05

Current Period Direct Gross Profit = (20)

Although the change in the CoR balance would be impacted by other factors (e.g. interest on the balance, retrospective unlocking of the AR), in this case the amortization is the largest driver of the change in the CoR balance. Looking at just the amortization for this period, we get:

$$AR = (11.5)/0.05 = (23,000) \%$$

Amortization for the period = AR \* Gross Profit  
 = (23000) % \* (20) = \$4,600 (or \$4.6 BILLION)  
 decrease in the asset

On a cash basis, the reinsurance treaty largely offsets the higher claim so we would expect the net financial impact to be small. Unfortunately, a large claim can cause the PV of recoveries to increase and the cumulative PV of direct EGPs to decrease. As shown above, this lever impact increases the amortization rate and causes a very large GAAP income hit.

Who volunteers to tell the CFO that a \$25 million mortality variance will cause \$4.6 billion of adverse variance amortization this quarter? How can users of financial statements reasonably interpret that the financial impact is almost 200 times worse than what it would be without reinsurance (\$4.6 billion vs. \$25 million)? Clearly, this is an unintended consequence of Method 2 for recognizing the CoR.

So what's the solution? Unfortunately, there is no clear guidance or agreement on any one solution to this issue.

One generally accepted alternative within the industry is a hybrid of Method 1 and Method 2. Under this third option (Method 3), only the expected costs of

As shown above, the asset accrual largely offsets the reinsurance cash flows (premium exceeding benefits) and the net income impact is \$0.01, or 1 percent of the direct EGPs, which is intuitive.

As long as the actual reinsurance cash flows are close to expected and somewhat stable, or as long as the actual reinsurance cash flow volatility is small relative to the size of the present value of direct EGPs, Method 2 produces a sensible earnings pattern over the life of the product. Often, this is no longer the case when reinsurance cash flow volatility is high and becomes significant in relation to the present value of EGPs.

To exemplify this, we extend example 1:

- Several years have passed (now at time t)
- A large death claim causes a mortality variance of \$25 million in the period
- The death claim variance causes the current period gross profit to be largely negative and decreases the cumulative PV of EGPs
- The cumulative PV of reinsurance cash flows decreases as the recoveries increase

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reinsurance are spread over the life of the policies. Under Method 3:

- The reinsurance cash flows used to calculate AR are unlocked prospectively only (i.e. the cash flows are unlocked for assumption and inforce updates, but not “trued up” for actual experience)
- The EGPs used to amortize the CoR balance (as well as DAC and other balances) are net of reinsurance (in fact, EGPs net of actual reinsurance cash flows that exceed expected reinsurance cash flows) consistent with paragraph 23 of FAS 97<sup>6</sup>
- The net EGPs are unlocked both prospectively and retrospectively

Unlocking the PV of reinsurance cash flows on a prospective only basis reduces the volatility in the AR numerator. Using EGPs net of reinsurance better aligns the actual direct policy claims with the actual reinsurance reimbursements, thereby producing EGPs that are more stable. This reduces the volatility in both the AR denominator and the current period EGP used for amortization. Because the EGPs are unlocked both prospectively and retrospectively, the CoR recognition pattern accounts for emerging experience and changes in expectations.

Let’s look at what would happen under the same parameters in Example 2 when we apply Method 3.

### METHOD 3 EXAMPLE – TIME PERIOD t

We now have the following values (\$millions):

$$\text{Expected Rein CF}_t = 0.50$$

$$\text{Actual Rein CF}_t = 0.50 - 90\% * 25.0 = (22.0)$$

PV (*Expected Rein CFs*) = 0.1 million (note that has changed from the value in example 1 to reflect prospective unlocking after the large claim was incurred)

$$\text{Current Period net EGP}_t = (20.0) - (-22.0 - 0.50) = 2.50$$

$$\text{PV (EGPs net of reinsurance)} = 24.0$$

Again focusing on the amortization, we get the following:

$$\text{Amortization Rate (AR)} = 0.10/24.0 = 0.4\%$$

$$\begin{aligned} \text{Current Period Amortization} &= \text{AR} * \\ \text{(Current Period EGP, net of reinsurance)} &= \\ 0.4\% * \$2.5 &= \$0.01 \text{ million} \end{aligned}$$

As compared to Method 2, this third option creates a more stable and understandable cost of reinsurance amortization when there are large deviations in claims.

Under Method 3, DAC, unearned revenue liabilities (URL), and other balances that are amortized based on EGPs will also be more stable because the net EGPs will be more stable than direct EGPs. Therefore, Method 3 produces overall results that are more intuitive to the users of financial statements.

This alternative approach does not solve all of your reporting concerns. However, you can now sleep a little sounder without worrying about a potential multi-billion dollar hit to earnings that could arise as a result of your current FAS 113 reporting methodology. ■

#### ENDNOTES

<sup>1</sup> This guidance can be found in ASC 944. “FAS 113” will be used as the reference in this article.

<sup>2</sup> ASC 944-605-35-14

<sup>3</sup> 944-30-35-5

<sup>4</sup> ASC 944-40-25-34

<sup>5</sup> ASC 944-605-35-15

<sup>6</sup> “Estimated gross profits... shall include estimates of the following elements,... e) Other expected assessments and credits, however characterized.”



# Update on Regulatory Developments

By Francis de Regnacourt

## OVERVIEW

This is a quarterly update on developments at the National Association of Insurance Commissioners (NAIC), the International Association of Insurance Supervisors (IAIS), as well as other groups who may get involved in group supervision, with emphasis on those that may be important to members of the Financial Reporting Section.

As the Federal Reserve meets with the non-bank systemically important financial institutions (SIFIs) in the first half of 2014, many are wondering how it will approach this new creature—the insurance group (new to them, anyway). There is a lot to be learned by reading their report on evaluating bank holding companies (BHCs). The nature and duration of the risks are different, but the fundamental approach to capital adequacy should not differ much. Moreover, the Fed material is very clearly written—an enjoyable read for anyone interested in risk management.

On the NAIC side, the spring meeting of the Life Actuarial Task Force (LATF) showed continued progress on a large number of fronts, but nothing major coming to a conclusion. We report below on a few items that may be of interest to members.

Finally, on the international side, the only major event reported by the IAIS this quarter was that there would be workshops for volunteers for field testing of Global

Capital Requirements in Basel, Orlando and Tokyo in March and April. Volunteers would be employees of companies that could be designated as internationally active insurance groups (IAIGs). We will continue to monitor developments.

## THE FEDERAL RESERVE'S REGULATORY EXPECTATIONS

The term SIFI refers to financial institutions, other than BHCs, that will be regulated by the Fed going forward. At this stage, there are three SIFIs designated by the Financial Stability Oversight Council (FSOC): AIG, GE Capital and Prudential. MetLife, as of this writing, is still in Stage 3 review.

The FSOC was formed to identify and monitor risks to the U.S. financial system. It was formed to be the single source performing this function and fill in the gaps that existed when each of the eight bank regulators (OCC,<sup>1</sup> OTS,<sup>2</sup> the Fed, FDIC,<sup>3</sup> FHFA,<sup>4</sup> CFPB,<sup>5</sup> CFTC,<sup>6</sup> NCUA<sup>7</sup>) monitored risks separately. The FSOC is chaired by the Secretary of the Treasury; it has nine other voting members: representatives of the eight bank regulators, and a president-appointed insurance representative (currently Roy Woodall, a past insurance commissioner of Kentucky). There are also non-voting members (see Office of Financial Research below).

The Fed's first meetings with the SIFIs are scheduled to take place in the first half of 2014, and little is known



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currently about how they plan to approach regulation of non-banks. In August 2013, however, they published a report (“Capital Planning at Large Bank Holding Companies: Supervisory Expectations and Range of Current Practice”) describing their expectations for internal planning at the large BHCs (referred to as CAP—capital adequacy process). The Fed’s Capital Plan Rule requires all large BHCs to have a capital plan; Comprehensive Capital Analysis and Review (CCAR) is their supervisory program for assessing the plans against the seven CAP principles in the preamble to the Capital Plan Rule (see Table 1). If the CCAR reveals weaknesses in the capital plan, the Fed may disallow company capital actions such as dividend increases or share repurchases.

The report discusses each of those principles in greater depth, describing what the Fed expects from BHCs, what they have seen in practice, and what they consider leading practices and lagging practices. In their conclusion, they acknowledge that internal capital planning has evolved considerably since the financial crisis and the Capital Plan Rule, but list areas in which some BHCs continue to fall short of leading practices: “Overall, data limitations, unclear or unsubstantiated management assumptions, and poor documentation were the problems most prevalent across the BHCs.” The label “lagging practice” is clearly defined as “unacceptable or in need of improvement.”

*Table 1. The Federal Reserve’s Seven Principles of an Effective CAP<sup>8</sup>*

**1. Sound foundational risk management**

The BHC has a sound risk-measurement and risk-management infrastructure that supports the identification, measurement, assessment, and control of all material risks arising from its exposures and business activities.

**2. Effective loss estimation methodologies**

The BHC has effective processes for translating risk measures into estimates of potential losses over a range of stressful scenarios and environments and for aggregating those estimated losses across the BHC.

**3. Solid resource estimation methodologies**

The BHC has a clear definition of available capital resources and an effective process for estimating available capital resources (including any projected revenues) over the same range of stressful scenarios and environments used for estimating losses.

**4. Sufficient capital adequacy impact assessment**

The BHC has processes for bringing together estimates of losses and capital resources to assess the combined impact on capital adequacy in relation to the BHC’s stated goals for the level and composition of capital.

**5. Comprehensive capital policy and capital planning**

The BHC has a comprehensive capital policy and robust capital planning practices for establishing capital goals, determining appropriate capital levels and composition of capital, making decisions about capital actions, and maintaining capital contingency plans.

**6. Robust internal controls**

The BHC has robust internal controls governing capital adequacy process components, including policies and procedures; change control; model validation and independent review; comprehensive documentation; and review by internal audit.

**7. Effective governance**

The BHC has effective board and senior management oversight of the CAP, including periodic review of the BHC’s risk infrastructure and loss- and resource-estimation methodologies; evaluation of capital goals; assessment of the appropriateness of stressful scenarios considered; regular review of any limitations and uncertainties in all aspects of the CAP; and approval of capital decisions.

It is unlikely that the Fed will have exactly the same requirements of SIFIs as it does of large BHCs; the nature and duration of the risks are very different between the two. The statement “Importantly, the Fed has tailored expectations for BHCs of different sizes, scope of operations, activities, and systemic importance in various aspects of capital planning” shows their willingness to recognize the different nature of insurers. That said, the fundamental principles of capital planning are broad enough to be applicable to all financial institutions. In fact, the description of capital planning is very similar to those of Solvency II and the NAIC’s Own Risk and Solvency Assessment (ORSA). The Fed’s report is the best indication currently available on what regulation of SIFIs will look like.

On March 26, 2014, the Fed approved the capital plans of 25 BHCs based on their CCAR results as of Sept. 30, 2013. It did not, however, approve the planned capital actions (dividend increases or share buybacks) of five other BHCs. In one instance, the BHC’s projected Tier 1 capital ratios fell below the 5 percent minimum in the “severely adverse” scenario—a deep recession with a rising unemployment rate, steep drop in housing prices and a nearly 50 percent decline in stock prices over nine quarters. In other instances of non-approval, the Fed cited “overall reliability of [the bank’s] capital planning process.” This is a clear example of the link between CCAR and regulatory actions.

Negative economic factors affect insurers as well as banks, but they do not translate into losses of capital as directly as for banks, especially those involved in direct lending. Our previous assertion—that it is premature to predict the effect of Fed regulation on insurers—stands.

## SYSTEMIC RISK MONITORING AT THE OFFICE OF FINANCIAL RESEARCH (OFR)

During a webcast sponsored by the American Academy of Actuaries (AAA), Rebecca McCaughrin, associate director at the OFR, discussed the OFR’s systemic risk monitoring framework. The OFR supports the FSOC by:

- Analyzing threats to financial stability: developing metrics and tools for monitoring and analyzing risks

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“Negative economic factors affect insurers as well as banks, but they do not translate into losses of capital as directly as for banks, ...”

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- Conducting research on financial stability: evaluating stress tests, proposing other potential stability-related assessments, reporting on market disruptions, and analyzing policy tools and responses
- Addressing gaps in financial data: promoting data integrity and accuracy for all users
- Promoting data standards: working with industry, regulatory, and others to establish global data standards, such as global legal entity identifiers (LEI).

The basic questions they are trying to answer are:

- Can the companies meet their basic financial tasks?
- Where are the risks accumulating?
- What regulatory policies should be established?

One of the OFR’s successes so far is a set of unique identifiers (analogous to CUSIP) for counterparties, to help assess risk exposures and fill data gaps in securitizations, especially for counterparty risk.

With respect to insurers, McCaughrin mentioned two concerns:

- Asset and liability data is more time-lagged, and less granular, than what they see with banks, making early detection of risks more difficult.
- Microstructures (captives) and the lack of sufficient data to truly understand their associated risks.

OFR is currently developing a financial stability model—a heat map of the entire financial services system across five areas of risk: macroeconomic, market, credit, funding and liquidity, and contagion. Its purpose is to provide FSOC members with a global view of the severity of each of those areas and their components.

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The OFR is still in its early days, but any addition to data and research on financial systems risks is always welcome. We look forward to hearing more from them.

### LATF MEETING AT THE NAIC SPRING MEETING, ORLANDO, FLA., MARCH 27-28, 2014

We report briefly here on new or substantial developments at this meeting. We hit only the highlights of the meeting; complete details are in the minutes produced by the NAIC and available on their website. In addition, there was forward progress on many ongoing projects, albeit without landmarks; we do not report on those.

### NEW VALUATION MORTALITY TABLE

Mary Bahna-Nolan (AAA Life Experience Subcommittee) reported that they hoped to expose a proposed 2014 VBT mortality table by the end of April 2014, with a view toward a final report at the end of August. They are still working on the slope of the mortality curve at older ages. She also asked for guidance from LATF on the level of margins to be used in developing the corresponding valuation table.

### VM-22 WORKING GROUP—KANSAS FIELD TESTS

Mark Birdsall (VM-22 Working Group) reported on the Kansas field tests. This group is distinct from the AAA's Annuity Reserving Working Group, but they work in parallel. They chose to try to advance the thinking on non-variable deferred annuity reserving, rather than just cutting and pasting from VM-20. Their focus is on floor reserves to be defined in VM-22.

Their focus is on listed benefits in the contract; guaranteed lifetime income benefit (GLIB) is the only one they are currently working on. They are developing a practical and auditable approximation of a stochastic process, as follows:

Floor reserve = maximum of (formula reserve, alpha, beta) where

- Alpha = Highest PV of benefits if listed benefits are paid for and eventually used
- Beta = Highest PV of benefits if listed benefits are discontinued at the valuation date

They are aiming for more sophisticated modeling of policyholder behavior (essentially the choice between annuitizing and deferring) to reflect the in-the-moneyness of the benefits, and made a few observations on GLIB utilization:

- Qualified contracts should have higher annuitization rates than non-qualified, given the minimum required distributions.
- Even a single-owner annuity may allow for joint-and-survivor annuitization options. On the valuation basis, they noted that joint options were richer than single-life ones (that is, higher PV of benefits), so utilization rates should reflect this, rather than assume that all options are actuarially equivalent.

### SMALL COMPANY EXEMPTION FROM PBR

John Bruins from the American Council of Life Insurers (ACLI) presented more details on the small company exemption request, which had been introduced at the Fall 2013 Meeting. The current proposal would exempt companies provided they had (a) less than \$300 million<sup>9</sup> of ordinary life premium (or are members of a



group that has less than \$600 million), (b) risk-based capital (RBC) greater than 225 percent, and (c) no secondary guarantees, other than “non-material” (defined as nominal guarantees with limits on the length of the secondary guarantee, or the ratio of premium to net valuation premium).

As before, regulators voiced sympathy in principle for very small companies, but balked at the idea of exempting a company with nearly \$300 million of ordinary premium. The proposals will be exposed for 45 days.

## INDEX-LINKED VARIABLE ANNUITIES SUBGROUP

Blaine Shepherd (subgroup chairman) reported that this subgroup was formed as a result of regulatory concerns around new products named variable annuities, but where the policyholder values are based on indexes, not necessarily on specific separate account performance. Their questions are:

- Should reserves be calculated according to the Variable Annuity model regulation or the Modified Guaranteed Annuity model regulation? Or a hybrid of the two?
- How should minimum non-forfeiture values be calculated?
- Are these contracts covered under state guarantee funds?

The industry recommends the VA model, but several regulators expressed a feeling that changes may be needed for these products. The subgroup published a list of concerns in January, and asked interested parties to respond to that list. ■

### ENDNOTES

<sup>1</sup> Office of the Controller of the Currency.

<sup>2</sup> Office of Thrift Supervision.

<sup>3</sup> Federal Deposit Insurance Corporation.

<sup>4</sup> Federal Housing Finance Association.

<sup>5</sup> Consumer Financial Protection Bureau.


<sup>6</sup> Commodity Futures Trading Commission.

<sup>7</sup> National Credit Union Association.

<sup>8</sup> Source: “Capital Planning at Large Bank Holding Companies: Supervisory Expectations and Range of Current Practice,” U.S. Federal Reserve, August 2013.

<sup>9</sup> Chosen to exempt about 10 percent of the industry by premium, per John Bruins (ACLI).





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SOCIETY OF ACTUARIES

## 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 Life Actuarial Task Force (LATF) continues to refine the methods and language of the Valuation Manual. One such refinement was introduced in early 2014. Called the “Direct Iteration” method, it presents an alternate approach to calculating the deterministic reserve required by VM-20. In the “PBA Corner” article from the December 2011 *Financial Reporter*, Ken Vande Vrede and I discussed this alternate method, describing it as a method that solves for an equilibrium amount, i.e., that amount of starting assets that completely satisfies the projected obligations such that no material asset balance remains once all liabilities are matured. Some readers have interpreted that article to say these two methods—the Gross Premium Valuation (GPV) method of VM-20 and the Direct Iteration method—produce different results. This was not the intended message. The GPV and Direct Iteration methods are two different ways of obtaining the same objective: identifying assets at the valuation date that support and mature the obligations associated with the modeled policies. This objective aligns with the purpose of the deterministic reserve: to assure premium adequacy under a moderately adverse economic scenario. The two methods are theoretically equivalent.

The December 2011 article was written assuming this premise of equivalence. It went on to identify cases within the Impact Study where this equivalence was not demonstrated. The reader must understand the Impact Study was conducted on VM-20, which uses GPV for the deterministic reserve calculation. It was only subsequent to the Impact Study during phase 2 analysis performed by the American Council of Life Insurers (ACLI) that these participants disclosed the ending asset values within the deterministic reserve runs. The following paragraph is from the December 2011 article. In this paragraph, the VM-20 method is termed “GPV” methodology and the amount solved for by the Direct Iteration method is termed “equilibrium amount.”

*In theory, the GPV approach specified and required by VM-20 should result in a starting asset amount approximately equal to the equilibrium amount described above. In work performed by some participating companies, the starting asset amount used in the GPV approach (i.e., the amount within the 2 percent tolerance) was indeed a fair approximation for the equilibrium amount of starting assets (i.e., the amount resolving to a zero asset value at the point liabilities are exhausted). Another participant observed, however, the GPV methodology seemed flawed. Once an asset amount was determined within the 2 percent tolerance, the integrated asset-liability model did not necessarily end up with a near \$0 asset value at the end of the projection horizon. Why would there be disconnect between these two approaches?*

The article went on to discuss various elements of the GPV methodology in response to this question of disconnect. In short, these elements include, but are not limited to: (i) various aspects of including starting PIMR and ongoing PIMR; (ii) impact of policy loans, if applicable; (iii) difficulties in extracting the exact information necessary to replicate the net asset earned rate (NAER) used by the projection system in rolling the financial statement forward; (iv) the complication of discounting the projected cash flows over very long periods of time particularly when those cash flows may be irregular, proportionately larger at the tail of the projection than the beginning, for example.

The modeling example in the December 2011 article was performed for an insurance block with a long horizon and significant cash flows at later durations. Under this circumstance, the construct of VM-20’s requirement of a 2 percent collar on starting assets restricted the “theoretical” correctness of the GPV method. Specifically, complying with the collar requirement implied over-funding of the projection, i.e., ending assets greater than necessary. If the GPV method were the only method allowed for determining the deterministic reserve, then for this case, the collar requirement seems somewhat artificial.



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CONTINUED ON PAGE 16

Table 1

Period	0	1	2	3	4	5	6	7	8	9	10
A) Net cash flows		-40	-20	-10	-5	-1	-1	-2	-1	-2	-1
B) NAER		0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04
C) Path of discount rates		0.9615	0.9246	0.8890	0.8548	0.8219	0.7903	0.7599	0.7307	0.7026	0.6756
D) -A*C		38.4615	18.4911	8.8900	4.2740	0.8219	0.7903	1.5198	0.7307	1.4052	0.6756
E) Sum (D) from (t) to 10	76.06	37.60	19.11	10.22	5.94	5.12	4.33	2.81	2.08	0.68	-
<b>Asset roll forward</b>	<b>\$76.06</b>	<b>\$39.10</b>	<b>\$20.67</b>	<b>\$11.49</b>	<b>\$6.95</b>	<b>\$6.23</b>	<b>\$5.48</b>	<b>\$3.70</b>	<b>\$2.85</b>	<b>\$0.96</b>	<b>\$(0.00)</b>

The American Academy of Actuaries' (Academy's) amendment proposal form describing the Direct Iteration method also introduces a modeling example, albeit a very simple one. Characteristics that make the example simple are: (i) a level NAER, and (ii) 10 years of annual cash flows where such cash flows are assumed to occur precisely at the end of each period. Table 1 shows a GPV of \$76.06 (Row E, period 0) and an ending asset value of \$0 (Row F, period 10).

The amendment proposal form suggests this Direct Iteration method has strong similarities to an existing method in Canada; the Canadian Asset-Liability Method or CALM. Under CALM, the reserve is the reported value of the starting assets whose cash flows, when considered with other modeled asset and liability cash flows, completely liquidate all modeled liabilities by the end of the projection horizon under conservative economic scenarios.

Valid reasons exist for permitting the Direct Iteration method, and these reasons are included in the amendment proposal.

- **Equivalence**—GPV and Direct Iteration are theoretically equivalent and satisfy the goal of finding the base of starting assets that satisfy the liabilities over time, under the assumptions specified for the deterministic reserve.
- **Simplicity**—from a practical viewpoint, the Direct Iteration method avoids the complexities of extracting NAERs from the model (which involves careful consideration of the non-cash accounting items such as accrual of discount). It also avoids having to discount the liability cash flows over the projection system

frequency (oftentimes monthly) while meeting the 2 percent collar requirement.

- **Avoidance of errors in approximation**—an actuarial projection system with a robust asset model does not first develop an NAER then accumulate asset values with it, but rather it models the actual asset cash flows and develops appropriate accrual items. If the company attempts to approximate the effective NAER of this process for use in the GPV calculation, small errors in the approximation can, over long periods of time, bias the calculation. Said another way, why try to replicate something that is already produced in a very accurate way within the system itself?
- **Proof of reserve adequacy**—the Direct Iteration method provides proof of the adequacy of the starting asset pool by simply noting the ending asset value once the liabilities have fully run off. In this way, the method also provides regulators with auditability.

The Academy's amendment proposal form suggests the Direct Iteration method be offered as an option or alternative to the GPV method in calculating the deterministic reserve. Specifically, the description reads:

*Calculate the deterministic reserve as a-b, where*

*a = the aggregate annual statement value of those starting assets which, when projected along with all premium and investment income, result in the liquidation of all projected future benefits and expenses by the end of the projection horizon. Under this alternative, the following considerations apply:*

1. *Cash flows are projected in compliance with the applicable requirements in Section 7, 8 and 9 over the single scenario described in Section 7.G.1.*

2. The requirements for future benefits and premiums in Section 4.A apply as well to the calculation of the deterministic reserve under this subsection.

*b* = that portion of the PIMR amount allocated under Section 7.

The amendment proposal is supplemented by an attachment intended to answer the question: “Does the Direct Iteration approach for the deterministic reserve result in the same amount as the GPV approach currently required by VM-20?” The attachment provides real model output using a vendor system and concludes the two approaches do result in the same amount assuming the GPV is performed with a robust level of granularity, particularly in regard to the timing of cash flows during the cycle of the projection. The attachment lists characteristics of the sample that allow the Direct Iteration method result to converge to the GPV result.

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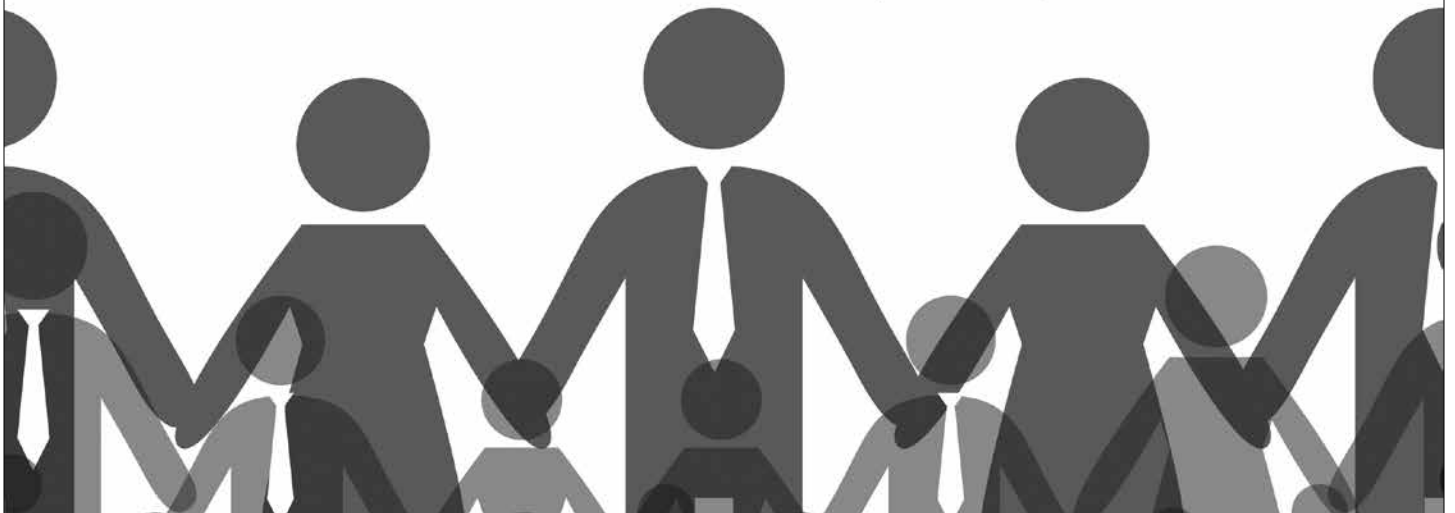
“...companies [will have] the option of choosing the calculation approach to derive the deterministic reserve.”

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LATF adopted the Direct Iteration method during its meeting at the 2014 Spring National Meeting in Orlando giving companies the option of choosing the calculation approach to derive the deterministic reserve. ■

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# Reflecting Rider Charges in GAAP Income for Indexed Annuities

by Dan Jackson and John Adduci



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Indexed annuity financial reporting has been called many things, but a few adjectives seldom used to describe it include “simple,” “straightforward” and “intuitive.” This article will focus on GAAP accounting for indexed products with riders. Specifically, how should the associated rider charges be considered when calculating FAS 133 reserves, estimated gross profits (EGPs) in a FAS 97 context, and the company financial statements?

The last few years have been kind to agents selling indexed annuities as sales continue to climb. Companies increasingly attach riders to the base indexed annuity to differentiate their product from those of their competitors. The most popular of these riders is the guaranteed minimum withdrawal benefit (GMWB), also referred to as a guaranteed lifetime withdrawal benefit (GLWB) or guaranteed lifetime income rider (GLIR). For purposes of this article, we’ll stick with the term “GMWB.”

Though not as popular as the GMWB, indexed annuities are also sold with other riders. Guaranteed minimum death benefits (GMDBs) attached to an indexed annuity are gaining popularity despite the fact that most product designs, unlike a variable annuity, have a built-in floor below which the account value/death benefit cannot drop. The GMDB adds an extra “layer” of protection against poor equity performance. Less prevalent than the GMDB but not unheard of, guaranteed minimum income benefit (GMIB) and guaranteed minimum accumulation benefit (GMAB) riders can also be found attached to a base indexed annuity chassis.

## RESERVE CALCULATION

The GAAP balance sheet reserve for an indexed annuity is different from a fixed credited rate deferred annuity or a variable annuity. That’s an understatement. For a fixed credited rate deferred annuity or variable annuity, the GAAP balance sheet reserve is simply the account value. The reserve for an indexed annuity is the sum of two pieces—a host contract reserve defined by FAS 91, and a value of embedded derivative (VED) defined by FAS 133. In general, the host contract represents the reserve for the guaranteed elements of the contract. The VED represents the reserve for any excess benefits projected to be paid over and above the

guarantees—in other words, benefits due to growth in the underlying index.

At time zero, the reserve is equal to the initial indexed premium so there is no gain/loss at issue:

- VED (0) = present value of projected excess benefits at time 0
- Host (0) = initial indexed premium – (VED at time 0)

At time  $t > 0$ , recalculate VED prospectively using updated assumptions. Host balance is accrued from issue at an internal rate of return (IRR) so that at maturity, host remaining = guaranteed minimum surrender value (GMSV) remaining on the contract.

- VED (t) = present value of projected excess benefits at time t
- Host (t) =
  - Host (t-1) \* (1 + IRR) –
  - Guaranteed benefits paid (t) +
  - Indexed premium (t) –
  - VED on indexed premium (t).
- After the initial premium date, the sum of the host + VED is not subject to any explicit floor (i.e., cash value) or ceiling.

When calculating the VED, we are present valuing the excess benefits. The excess benefits are the total indexed benefits paid at each future date minus the portion of those indexed benefits paid that were guaranteed. For a simple example, if a contract has a GMSV of \$100 and an indexed account value of \$120, and we project a full surrender next month, then the excess benefits = \$120 – \$100 = \$20. The present value of \$20 with one month of discount becomes the VED. In reality, the amounts released in each month of the projection are based on partial withdrawal, lapse and mortality rates which cause only a fraction of the indexed fund value to be released each month. The sum of all of these discounted pieces of indexed excess benefits released one month, two months, three months, etc. from the projection date is the VED.

Indexed annuity product designs include riders with associated rider charges, as mentioned above. These rider charges are projected and decrease the indexed





funds available for withdrawal; however, many product designs stipulate that rider charges do NOT decrease the GMSV. In this case the VED at time zero is much less than the VED of an identical product without any rider charges, since the rider charges reduced the projected fund value (but not the GMSV). Therefore, if the VED at time zero is smaller, then the host at time zero will be greater (to avoid a gain or loss at issue) and have a lower associated IRR.

The complication here is that when the calculation of the VED was done at time zero, the VED anticipated that the rider charges would reduce the indexed funds. As the policy moves forward in time and rider charges are actually paid, there is no mechanism to reduce the GAAP reserve, since:

- Host contract is based on the GMSV, which is not impacted by rider charges, and
- VED is not impacted by the rider charges because it is a prospective calculation (i.e., when it was calculated prior to the rider charges, it anticipated that they would be paid). Rider charges are reflected in the VED before they are actually paid.

Unlike a fixed or variable annuity, where rider charges cause a drop in the account value and thus an equal drop in GAAP reserve, there is no drop in GAAP reserves on indexed funds when rider charges are assessed! The application of FAS 133/FAS 91 methodology to indexed annuity GAAP reserves likely did not contemplate modern product designs with a variety of attached riders and associated charges.

## GAAP BALANCE SHEET AND INCOME STATEMENT

One of the components of GAAP surplus is the GAAP benefit reserve. For indexed funds in a deferred annuity, the GAAP benefit reserve is equal to the host plus VED. For fixed funds, the GAAP benefit reserve is equal to the account value. It follows that any change in the indexed fund GAAP benefit reserve (host + VED) or the fixed fund GAAP benefit reserve (account value) will be reflected as a change in the GAAP surplus. This is basic insurance accounting.

Rider charges are generally recognized as income in the GAAP income statement. In addition, paragraph 23 of FAS 97 states that EGPs need to include an estimate of expected rider charges. For money in a fixed credited rate fund, there is no inconsistency between GAAP income and the GAAP surplus—any rider charges included as income will be mirrored as a decrease in GAAP benefit reserves, and thus an increase in the GAAP surplus.

## THE PROBLEM

The problem, as you may have guessed by now, occurs when rider charges are assessed against funds in an indexed account. When rider charges are subtracted from the indexed account value, there is no associated drop in the base contract reserve (host + VED). Therefore, the change in GAAP surplus is not equal

CONTINUED ON PAGE 20

to GAAP income. This should raise a red flag to any aspiring accountants reading this article ... the change in GAAP surplus needs to equal GAAP income. If not, then the GAAP balance sheet and income statement are out of sync.

It is worth noting that the riders themselves are not typically considered to be fundamentally related to the base contract. Therefore, the rider reserve is carved out and calculated as a stand-alone reserve under SOP 03-1 or FAS 133 methodology. Under neither SOP 03-1 nor FAS 133 methodology does the rider charge assessment result in a drop in the rider reserve equal to the rider charge.

## SOLUTIONS

### PROPOSED SOLUTION #1: REMOVE RIDER CHARGES ON INDEXED FUNDS FROM GAAP INCOME.

Details and analysis of Solution #1: This solution aims to put the GAAP balance sheet and income statement back in sync by removing rider charges on indexed funds from income. One drawback to this solution is that it treats rider charges attached to fixed funds as income, while rider charges attached to indexed funds are not included in income. Other than that inconsistency, this adjustment is very doable by just making a minor adjustment to GAAP revenue.

To remove rider charges on indexed funds only from GAAP income, create a new GAAP revenue item. You can call it “GAAP miscellaneous revenue” or something similar. The adjustment to make is the following:

- GAAP miscellaneous revenue =
- A. Change in indexed AV –
  - B. Change in indexed reserve +
  - C. Interest on host contract reserve +
  - D. Increase in value of embedded derivative –
  - E. Equity index credits

This adjustment item, GAAP miscellaneous revenue, will equal zero when there are no rider charges on indexed funds. This is because items A and E and items B, C, and D cancel each other out. When there are

rider charges on indexed funds, GAAP miscellaneous revenue will be equal to  $(-1) * (\text{indexed rider charges})$ , effectively removing indexed rider charges from the income statement.

Another item to consider is FAS 97 EGPs. FAS 97 EGPs are used to amortize DAC and sales inducement assets (SIAs) attached to indexed annuities. With this solution, it is clear that indexed rider charges will not be in GAAP income. But should the indexed rider charges continue to be included as a revenue item for EGP purposes? The answer to this can be debated but generally one would think of the income statement and EGPs moving together. Your calculation platform should be flexible enough to make the adjustment to GAAP income only, or GAAP income as well as EGPs depending on what your company and auditors decide. Finally, what occurs when/if policyholders discontinue their riders? Because the benefits paid will increase in the projection, the VED will increase by the PV of the rider charges. This can lead to a large increase in the VED that doesn't seem appropriate considering there is no reduction in the host.

### PROPOSED SOLUTION #2: INCLUDE RIDER CHARGES ON INDEXED FUNDS AS AN INCREASE IN GAAP SURPLUS.

Details and analysis of Solution #2: If we could somehow force rider charges to be reflected as an increase in GAAP surplus, whether they are attached to a fixed or an indexed fund, then the GAAP balance sheet and income statement would be back in sync. The problem is we have to find a mechanism for doing so. Under existing actuarial practice, this mechanism has not yet been invented. So ... let's invent one!

Consider how the indexed annuity reserve is calculated. It is the VED plus the host contract. Recall that at time zero, the  $(\text{host} + \text{VED})$  is equal to the indexed premium to avoid gain/loss. Also recall that all other things being equal, a contract with a rider will have a higher host contract and a lower VED at issue than an identical contract without a rider. The sum will still be equal to the initial indexed premium.

As we march along through time, the host contract value accrues to maturity at a FAS 91 internal rate of return. The VED is recalculated prospectively based on updated market assumptions and index values at each future valuation date. The VED anticipates the payment of rider charges coming out of the account value but not reducing the GMSV for the contract.

What if we fundamentally changed the calculation of the VED to **reflect rider charges as excess benefits**? Doing so would accomplish the following:

1. The VED at time zero would be higher and host at time zero would be lower, and thus more in line with the VED and host for the same contract without an attached rider. Also if policyholders elected to discontinue their riders, there would be little change in the VED/host unlike Solution #1.
2. When the policyholder reaches a date when rider charges are due, the indexed rider charges paid would reduce the VED (as would a partial withdrawal or other benefit) because:
  - a. The VED is a prospective calculation of the present value of future excess benefits and
  - b. Once rider charges are paid, they are in the past and no longer part of the prospective VED calculation.
3. The payment of these rider charges will result in a drop in the VED without affecting the host. It follows that GAAP benefit reserves will realize a drop equal to the amount of the indexed rider charge. This drop will be reflected in GAAP surplus.
4. The decrease in GAAP reserve/increase in GAAP surplus will now be in sync with the increase in GAAP income due to the indexed rider charges.

In order to justify including indexed rider charges as excess benefits when calculating the VED, the definition of a “benefit” would need to be more than a cash payment and include the rider charge. The rider charge can be interpreted as a partial withdrawal from the indexed account. However, this partial withdrawal is never mailed to the policyholder in the form of a check. Instead, the policyholder has agreed (by purchasing the rider) to immediately turn around and give this money back to the insurer in exchange for continuing the rider.

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“In the authors’ opinion, including indexed rider charges as excess benefits when calculating the VED is an elegant solution.”

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There are other situations where either proposed solution (or GAAP reserving in general) tends to struggle. For example, what happens when the GMSV exceeds the fund value? What happens if projected rider charges are higher than projected index credits? How is the GMSV allocated between fixed and indexed funds? Our proposed solutions aren’t meant to solve all of the inconsistencies and problems in FAS 133, but simply to address this disconnect between the balance sheet and the income statement/EGP stream.

In the authors’ opinion, including indexed rider charges as excess benefits when calculating the VED is an elegant solution. It puts the GAAP balance sheet and income statements back in balance as well as making the initial host and VED more in line with the host and VED for a contract without rider charges. The main drawback of this method is that it is not accepted practice to consider rider charges a “benefit” to the policyholder.

## CONCLUSION

The application of FAS 133/FAS 91 methodology to indexed annuity GAAP reserves likely did not contemplate modern product designs. The fact is, indexed annuities with riders are very popular in today’s annuity market. The purpose of this article was to outline the problem (an inconsistency between the GAAP balance sheet and income statement) and propose a solution or two (to put them back in sync). The authors of this article acknowledge that there are likely other ways to address this issue, and we are interested in hearing about them. But in our opinion, if your company has not already done so, it should consider taking action to correctly re-align the balance sheet and income statement. ■

# FASB and IASB Divergence

By Leonard Reback



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**O**n Feb. 19, the Financial Accounting Standards Board (FASB) made three critical decisions on its ongoing project to revise US GAAP accounting for insurance contracts. These decisions represent a step back from FASB's work in converging accounting standards with the International Accounting Standards Board (IASB), which promulgates accounting standards for many countries outside the United States. This is consistent with recent decisions in other projects in which IASB and FASB moved away from convergence.

## STATUS OF THE FASB INSURANCE CONTRACTS PROJECT

On Feb. 19, FASB made the following three decisions:

1. The insurance accounting project will only address contracts sold by insurance entities. The Exposure Draft proposed applying the new standard to all contracts that meet the definition of an insurance contract, subject to specified exceptions, regardless of the nature of the entity issuing the contract. So it would have included certain guarantees sold by banks and certain warranties sold by entities which

may not be financial institutions. FASB did reserve the right to reintroduce some insurance contracts sold by non-insurance entities within the scope of the project if it made sense to do so later. The proposed IASB insurance contracts standard is not restricted to insurance entities.

2. No substantive changes will be made to the measurement of short-duration contracts. However, additional disclosures will be required. It seems likely that these additional disclosures will include the loss development triangles for property and casualty (P&C) contracts. The IASB is continuing to pursue the premium allocation approach (PAA) for measuring short-duration contracts within its insurance contracts project.
3. For long-duration contracts, FASB decided to pursue "targeted improvements" to both measurement and disclosure under US GAAP, and thus will not continue working toward convergence with the model being developed by the IASB. It is not clear what improvements the board has in mind. Three of the seven board members voted to continue pursuing convergence using the building blocks approach (BBA) that FASB and IASB had been working on for the past six years. Two board members voted for targeted improvements but seemed to indicate that those improvements may ultimately come close to BBA. And two board members seemed to favor much less extensive changes to existing GAAP. Meanwhile, the IASB is moving ahead with its project to develop the BBA model and is attempting to issue a final standard in early 2015.

As far as I can tell, reactions from actuaries to FASB's decision have been mixed. P&C actuaries seem to be generally happy with the decision, as many had major concerns with the proposed PAA model. Basically, the attitude seems to be that existing accounting for short-duration contracts is not broken, so there is no need for significant changes, although many agree that additional disclosures would be useful.

Opinions of life actuaries seem to be split. Some actuaries are content with existing US GAAP, and so prefer targeted improvements to the more wholesale changes the BBA would have represented. But other actuaries



believe there are significant problems with existing US GAAP that the BBA could have addressed. For example:

- Using current assumptions and discount rates to determine the balance sheet would mitigate accounting mismatches with assets and hedging instruments reported on the balance sheet at fair value, and also better reflect the economics of guarantees currently covered by SOP 03-1.
- Unlocking assumptions for FAS 60 business would also avoid issues of premium deficiencies surprising investors by recognizing losses that have built up over time all at once, and of being unable to reflect premium rate changes in the reported liability.

These actuaries are concerned that the targeted improvements FASB develops will not be able to address all the problems with existing US GAAP for long-duration contracts. Actuaries whose work involves both U.S. business and business outside the United States are also concerned about the lack of convergence between FASB and IASB.

## STATUS OF FASB/IASB CONVERGENCE ON OTHER PROJECTS

In the aftermath of the 2008 financial crisis, FASB and IASB agreed to focus work on improving and converging accounting standards in four areas:

- Financial instruments
- Revenue recognition
- Leases
- Insurance contracts.

Of these four projects, only revenue recognition now appears as if it will result in a substantially converged standard. The boards intend to release their substantially converged revenue recognition standards in 2014. Although insurance contracts and financial instruments are scoped out of this project, the revised standards could have some impact on actuarial work to the extent they may impact the valuation of contracts for services other than insurance, such as administrative services only contracts.

The boards have made some significantly different decisions within their joint leasing project, although many aspects of the models are consistent. But for the two projects of most interest to actuaries—insurance contracts and financial instruments—convergence seems unlikely.

The financial instruments project has three components: classification and measurement (i.e., should instruments be measured at amortized cost or fair value, and, if the latter, should changes in fair value due to changes in interest rates be reported in net income or OCI?); impairment; and hedging. IASB recently issued its revised hedging standard. The revised standard relaxes some restrictions on eligibility for hedge accounting, although it is unclear whether these revisions themselves will be adequate to permit most hedged risks within portfolios of insurance contracts to achieve hedge accounting treatment. However, FASB has yet to begin substantial deliberations on hedge accounting since releasing an exposure draft in 2010.

On financial instrument classification and measurement, the boards had been working toward convergence. However, decisions since late 2013 have moved the boards apart. Under the IASB proposal, unless substantially all cash flows in a financial asset represent principal and interest, the asset will be reported at fair value with all changes in fair value reported in net income (FV-NI). This means that equity instruments and convertible debt will be reported at FV-NI. Any financial asset with an embedded derivative, even if the derivative has little value, will be reported in its entirety at FV-NI, since there will be no more bifurcation of embedded derivatives for financial assets and the derivative cash flows are not strictly principal and interest. And many structured securities other than the top tranche will be at FV-NI, since the compensation for protection provided to higher tranches is not considered to be strictly principal and interest. Debt instruments whose cash flows are strictly principal and interest would be eligible to be reported at amortized cost or fair value through other comprehensive income

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(FV-OCI), unless they are held for trading. IASB also decided to place some restrictions on electing a fair value option.

FASB is now looking to make targeted improvements to existing classification and measurement guidance. Bifurcation of embedded derivatives will be retained, and debt securities will continue to be classified as trading (FV-NI), available-for-sale (FV-OCI) or held-to-maturity (amortized cost). However, equity instruments will be required to be reported at FV-NI. FASB will also look to make other targeted improvements to reporting of financial instruments, so it is possible that some other instruments could be required to be reported at FV-NI. FASB has tentatively decided to retain an unrestricted fair value option provision.

The boards had been working together on a converged financial instrument impairment standard for several years, but they are now taking very different positions on this topic as well. The IASB is developing a model in which a small portion of expected future impairment losses on an asset is recognized as an allowance (and as a current loss) when a debt asset is acquired (unless that asset is reported at FV-NI). If and when there is a significant enough deterioration in the credit quality of the asset, the full present value of expected default losses over the life of the asset will be recognized in the allowance.

FASB's impairment model will recognize an allowance equal to the full present value of expected default losses as soon as the instrument is acquired, and thus a larger loss upon acquisition of an asset. However, they have decided to make a partial exception for instruments reported at FV-OCI, which represent many of the assets held by insurance contracts. For such instruments, the amount of allowance will be limited to the amount, if any, by which fair value is less than amortized cost of

the instrument. So at inception, when the fair value and amortized cost would likely be equal, no impairment loss would be recognized. But if interest rates rise, and as a result the fair value falls below amortized cost, the impairment loss would be recognized to that extent.

## WHAT DOES ALL THIS MEAN TO ACTUARIES?

About three years ago, it appeared that we would have largely converged accounting standards for insurance contracts and financial instruments, as well as revenue recognition and leases, between the United States and most other countries. Now it appears that most of this convergence will not be achieved, especially on the projects of most interest to actuaries—insurance contracts and financial instruments. So actuaries who work on businesses both inside and outside the United States will need to deal with different sets of accounting guidance. Also, as FASB determines its targeted improvements for insurance contracts and financial instruments, and begins to address hedging, actuaries will need to be diligent in making their voices heard to ensure that the resulting standards produce improved financial reporting information for users of financial statements. ■



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# The Risk-Focused Examination

By Frank Clapper

In October 2007 the National Association of Insurance Commissioners (NAIC) passed the “Annual Financial Reporting Regulation,” otherwise known as the “Model Audit Rule” or “MAR” for short. Together with codification of statutory accounting principles, this laid the groundwork for the risk-focused examination approach now incorporated in the *Financial Condition Examiners Handbook*. The risk-focused exam approach has completely changed the manner in which regulatory examiners approach their work, particularly in the actuarial area:

1. Efficiency is a major goal. Resources are allocated where they are expected to be most effective, and work is limited to that which is necessary to come to an overall conclusion about the company’s current state.
2. Sample testing is done only where it is both necessary and effective in coming to a conclusion.
3. There is a greater emphasis on the process by which the financials are produced and less emphasis on the actual results. This includes a thorough examination of corporate governance.
4. The scope of the exam includes not only the traditional risk of financial misstatement, but also an assessment of “prospective” risks not contemplated in the current balance sheet. This includes a good look at the company’s risk management function.

A holistic approach is used. The actuarial area (“reserves”) is examined in the context of the whole company’s risk profile. So, the actuarial exam is closely coordinated with the rest of the exam and actuaries work closely with non-actuaries, within the company, within the exam staff, and between the company and the examiners.

## BACKGROUND

The risk-focused examination approach is the result of a long series of related events that have occurred in both the insurance industry and the larger corporate environment. Congress passed the Sarbanes-Oxley Act (known as SOX) in 2002 in an attempt to solve financial reporting problems of public companies that had come to light as a result of investigations into the financial scandals (Enron, etc.) of the early 21st century. These financial scandals were partially enabled by more financial engineering in both products and company structures,

accompanied by weak risk management, weak accounting controls, and inability of auditors and regulators to keep up. SOX put responsibility for financial reporting squarely on company management. This enabled auditors to adopt a risk-focused approach, thereby creating a win-win situation for both company managements and auditors: The management could reduce the audit budget by demonstrating controlled financial reporting, and auditors could focus their limited resources on problem areas instead of looking at everything.

Being financial intermediaries, life insurance companies were automatically part of the events driving SOX, but there were other factors that also entered into the movement toward a risk-focused approach for statutory financial reporting. Ironically, simplified (formulaic) statutory minimum reserve standards were created by Elizur Wright in 1858 so that actuarial examinations could be performed more efficiently: Examiners would only have to do sample checking of reserve factors against a tabular factor in a book instead of re-evaluating the company’s entire valuation method in order to come to a conclusion on reserve adequacy. As late as 1985, there was no requirement for cash flow testing from the regulators or from the actuarial profession. It was not necessary to involve an actuary in the examination since well-qualified non-actuarial examiners could look up whole life (and other traditional life) minimum reserve factors from a published table, or health reserve factors from other official factor books, and could evaluate claim triangles. With the introduction of interest-sensitive products having a flexible crediting rate closely related to the rate earned on assets backing the reserves, it became apparent that simplified formula reserves might become inadequate if the company could not earn the guaranteed minimum crediting rate. This situation was exacerbated by the inflationary and unstable interest rate experience of the 1980s, which caused further disintermediation between assets and liabilities.

In response to this experience, regulators have gradually introduced more dynamic and flexible valuation requirements. The commissioners’ annuity reserve valuation method (CARVM) was introduced in 1980, requiring multi-scenario analysis of deferred annuities, with the scenarios depending on lapse and mortality



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experience rather than interest rate paths. Dynamic valuation interest rates were introduced in 1982. The American Academy of Actuaries (Academy) then drafted “Recommendation #7” requiring cash flow testing (CFT), and in 1985 New York incorporated this draft language into Regulation 126: This was the first U.S. regulatory requirement for asset adequacy analysis.

Flexible mortality assumptions for term life insurance were introduced in 2000 and subsequently addressed in the Valuation of Life Insurance Policies Model Regulation commonly known as “Regulation XXX.” Various iterations of Regulation XXX followed as new product designs were introduced. The year 2009 saw the introduction of AG43 for variable annuities, requiring a stochastic projection of interest rate and equity return scenarios, along with dynamic lapse and mortality assumptions that were fully responsive to varying economic conditions in different scenarios. (The need for AG43 followed more than 10 years of research and committee work by the Academy, which was unable to find an appropriate simplified valuation method for valuing variable annuities with guaranteed minimum income benefits [GMIBs].) Around the same time, it became apparent that ordinary life insurance and other products were also moving in the same direction, with multiple options and dynamic crediting rates embedded in these products. Thus, there began discussions of a principle-based reserve (PBR) concept for valuation, wherein calculation methods and assumptions for minimum required statutory reserves are more dynamic and flexible.

Changes in valuation methods have led to changes in the examination approach. As CFT supersedes formulaic reserves in both importance and complexity, examiners will shift their attention away from formulaic reserves and toward CFT. As the simplified formulaic reserve standards are replaced by dynamic valuation standards closely resembling CFT, examination emphasis will also shift toward these new standards, and much of the work done to examine CFT can be replaced by examination of the dynamic methodology.

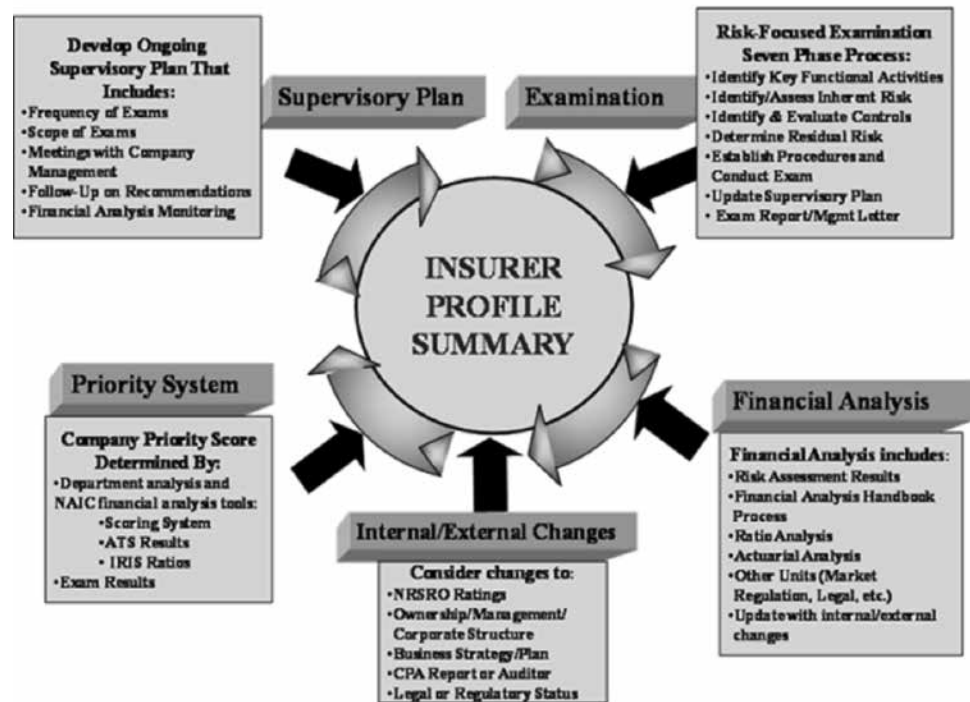
## THE COMPANY ACTUARY’S NEW ROLE UNDER MAR

Reserves and other actuarial liabilities are subject to the same new requirements as other balance sheet items under both SOX and MAR. This means that the actuary must not only perform the calculations correctly, but must document the reasons for choosing a particular accounting basis or set of actuarial assumptions. The actuary must also document and test all controls on the valuation process and demonstrate why he or she believes that the financials under his scope are stated correctly in the financial statements. Thus, the actuary’s responsibilities no longer begin and end with valuation calculations. Rather, the scope of the actuary’s responsibilities now includes validation of the inputs used in the valuation process, as well as following the valuation results all the way through recording in the ledger and finally in the published statement.

## THE EXAMINING ACTUARY’S NEW ROLE UNDER THE RISK-FOCUSED APPROACH

The examining actuary’s role has been changed to mirror the changes in the company actuary’s role. The risk-focused examination is part of the “risk-focused surveillance cycle,” which is a dynamic process under which the state is regularly reviewing new information from the company to determine the next steps in its supervisory program. The purpose is to assure that state resources allocated to insurance supervision are allocated most efficiently.

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The Risk-Focused Examination Seven-Phase Process is illustrated in this graphic from the NAIC *Financial Condition Examiners Handbook*, copyright 2014 by the National Association of Insurance Commissioners, used with permission.

The examination is a deep dive to reassess the inherent risks in the company’s operations and get the latest detailed information. The examination process has been divided into “phases,” with most of the early work consisting of getting familiar with the company and its businesses, as well as its staffing, risk management policies, IT environment, etc. Then, there is a very formal and thorough risk assessment process to determine how well the company management has mitigated the risk of a material misstatement in the financials. Finally, the examiners do sample testing only where the residual risk is deemed to be material.

Phase 1 of the risk-focused examination is to “Understand the company and identify key functional activities to be reviewed.” In Phase 1 the examiners try to answer the question: Who and what are we dealing with? Phase 2 is to “Identify and assess inherent risk in activities.” The question to be answered in Phase 2 is: What can go wrong? Together, these phases constitute the planning portion of the exam in which examiners gather and review as much information as possible in order to start to define the company’s risk profile and develop an approach for examining the company. During Phase 1 the examiners will hold preliminary high level meetings with the company to understand the company’s organization, business strategy, products, markets, and risk management process. The information reviewed includes public statements, insurance department records (including annual statements), and some preliminary information solicited from the com-

pany, such as organizational charts, board meeting minutes, and auditors’ reports (internal and external). With this information the examiners begin the process of identifying the inherent risks in the company’s operations. These risks will include products, markets, operations (corporate governance), and staffing adequacy and competency.

The risk assessment will also be based partially on quantitative aspects (materiality). Actuarial examiners will look at not only the amount of reserves for a particular product, but also the risk exposure (e.g., face amount or income) and the sensitivity of the product to the economic environment. So, for example, a policyholder option that currently has a reserve of zero may still contain a high inherent risk if a downturn in interest rates would result in a high reserve.

Risks reviewed include not only the risk of misstatement in the financials for current in-force business, but also “prospective” risks, which is a very broad category of risks that includes such things as under-staffing, underpricing, deteriorating new business, or excessive compensation commitments.

In Phase 2 the examiners look at “inherent” risk, which means the risk that exists without regard to any risk mitigation that may have been implemented by the company. This risk is analyzed both qualitatively and quantitatively, following a very formalized structure fully described in the *Examiners Handbook*. The basic



question to be answered in this phase is “What can go wrong?” and, secondarily, “Is it, or could it be, significant?” in terms of its impact on the company’s operations. Note that the word “wrong” is very broadly interpreted to include not only lack of current profitability, but anything that might inhibit the company’s long-term success. A good example is reputational risk, where a company must either take a large current loss to resolve an issue (e.g., mis-handling of claims over an extended period of time) or else face the prospect of a bigger loss later on due to deterioration in the company’s reputation.

The actuarial examiners fully participate in Phases 1 and 2, focusing on “Reserves” and any other aspect of the examination where the chief examiner solicits their support. Typical areas for other actuarial analysis would include reinsurance and pricing. In particular the actuarial examiners will look closely at the corporate governance around the valuation process, including reporting relationships all the way from the person who runs the valuation program up to the board of directors.

The result of Phase 2 will be full documentation of inherent risks, including a preliminary rating of high, low, or medium for each risk. For risks rated other than low, the examiners will then proceed to Phase 3 —Identify risk mitigation strategies and controls. In this phase the examiners attempt to answer the questions: “How is the company managing and mitigating its risks?” and “Is it effective?” The examiners solicit and review detailed information on the company’s risk management process, control structure, and testing program. This includes a review of management’s own documentation, as well as internal and external audit reports. It also includes the interviewing of departmental managers and selective interviewing of lower-level managers to determine if the documentation is complete and accurate. For example, a manager may implicitly be relying on a control that is not formally documented or reviewed by the auditors.

In Phase 4 the examiners determine residual risk by analyzing the risk mitigation strategy, including any available documentation, as well as information obtained through interviews. Note that a lack of docu-

mentation indicates a control weakness, despite any apparent benefits from the control, because it indicates a lack of management oversight and an inability of management to rely on those controls in signing off on the financial statements. “If it isn’t documented, then it doesn’t exist!!” Documentation is necessary not only for management’s own review but also for any subsequent reviews or testing done by internal audit, risk management, or outside auditors.

Note that through Phase 4 the examiners have not independently tested anything, but instead have obtained all available evidence of risk mitigation by management, including testing by management or auditors. The purposes of Phases 1 through 4 are, in fact, to independently evaluate testing by others to see if the examiners can rely on it and avoid unnecessary independent testing. As a result of Phase 4 the examiners will document the amount of residual risk present in each of the identified inherent risks, after judging the effectiveness of any risk mitigants. This is done through a formalized structured process in which the examiner rates the inherent risk, the potential effectiveness of the control, and the testing of that control, both qualitatively and quantitatively. The *Examiners Handbook* provides a calculation method for determining residual risk so that examiners may use a consistent approach. Examiners may override the formulas through use of judgment, but the rationale for assigning a rating must be fully documented, regardless of whether the rating is fully explained on an objective basis or whether it is partially subjective.

Neither the target company nor the state examiners desire that the examiners do any unnecessary testing because it would waste the examiners’ time and detract from the achievement of their objectives, and it would unnecessarily increase the overall budget for the examination. Therefore, after the preliminary ratings of residual risk are determined, the examiners may take a second look at any area where documentation of effective controls appears to be lacking, before moving on to Phase 5. This can save time and money, as it may

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result in finding documentation that the company failed to produce in the first go-round because of inadequate communication, or it may reveal effective controls that are simply undocumented or not sufficiently tested.

Phase 5 of the risk-focused examination consists of detailed testing. The amount and scope of the detailed testing will depend on the residual risks resulting from Phase 4. The actuarial examiners will coordinate with other examiners to get an overall assessment of the residual risks. Then, a testing plan will be developed that takes into account both the materiality and severity of the residual risks. Testing will be prioritized on a proportional basis with respect to the company's overall risk profile. In general, any residual risk with a rating other than low will be tested. The size and scope of the test matrix will depend, as always, on the materiality of the risk and the complexity of the risk profile. Even risks with a residual rating of low may be chosen for testing, if the examiners deem the inherent risk to be so high as to cause concern about the effectiveness of controls.

Phase 6 of the examination involves updating the state's priorities in their supervisory plan. As noted above, the examination is part of the "risk-focused surveillance cycle," and the next steps in that cycle will be based on the results of the examination. Phase 7 involves the documentation of the examination results, including a report, a management letter, and various structured report details included in the state regulatory system. Quite often, the actuarial report will be positioned as an appendix to the overall examination report. As noted above, the examination report and supporting documentation will help the state insurance department determine the next steps in its surveillance of the target company.

## GENERAL CONSIDERATIONS

1. U.S. public companies have a head start on the risk-focused examination process, as the same process (i.e., a risk-focused audit) has been used for the company's GAAP financials since the introduction of SOX. Such companies would already be familiar with the process of identifying risks, identifying controls, and testing and documentation. Therefore, the

company would at least have a longer experience in using the process that supports a risk-focused examination. Moreover, many of the same controls used for GAAP financials are used for statutory financials.

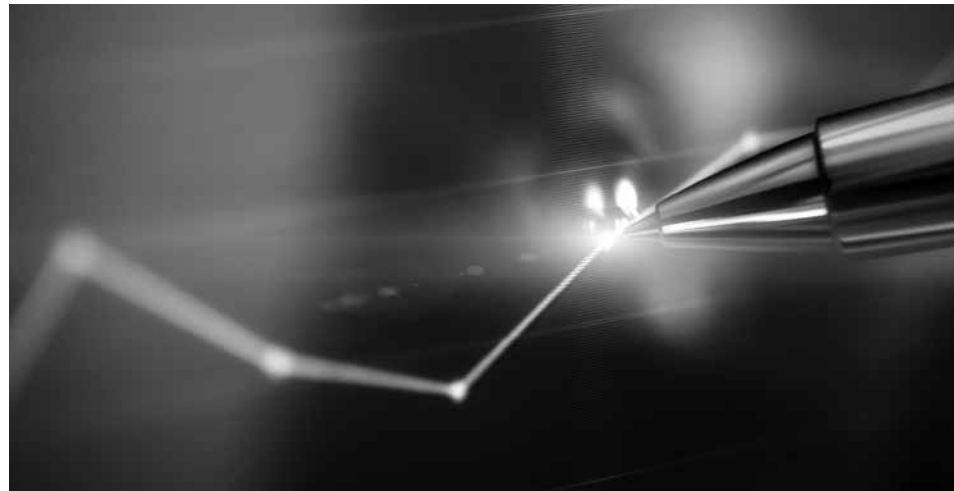
However, in the actuarial area (reserves) the process is not completely redundant unless the statutory reserve calculation is equal to the GAAP reserve. At the very least the statutory reserve will usually involve a different assumption set, and it often involves a different formula, a different process, or even an independent system. In extreme cases, the statutory reserve will be completely independent of the GAAP reserve, including a different staff assignment. Moreover, the reporting of the statutory reserve involves a separate ledger and reporting process, even if the reported figure is exactly the same.

The statutory examination may rely on SOX testing to the extent that the process is the same. So, for example, a whole life reserve that involves exactly the same formula and valuation process, but a different valuation interest rate or mortality table, may require almost no additional testing for statutory reporting. Conversely, if the same valuation process is used for statutory and GAAP (including the same valuation software, inputs and staff), but two different formulas are used within the valuation software, then checking would involve only a test that the right formula is used, as well as the right reporting process.

2. The degree of automation is a big factor in determining inherent risk. To the extent that a process is locked down so that the chance of an inadvertent error is minimal, then there is less need for extensive testing. This means that the process must be performed beyond the control of the user so that the user cannot inadvertently cause an error through a manual step. In other words, nothing can go wrong because the user has no control over it. Most valuation processes are not fully automated. However, a valuation process can be almost fully automated if the user control is limited to inputting a few variable values or choosing a variable value (e.g., a table index) from a limited menu. In this case controls would

only be necessary to assure that the right choice was exercised. Actuaries typically like to use Excel workbooks in the valuation process because of their flexibility in accepting inputs or changes in formulas or data. Unfortunately, that flexibility also increases the inherent risk in the process because it multiplies the number of things that can go wrong. Thus, Excel workbooks must include controls that limit the ability of the user to make changes. Generally, this would include limited access to the workbook through password protection on both the workbook itself and the computer location where it is filed. It would also include protection against writing in the workbook other than a few restricted routine changes or inputs. One effective control is a program change log that describes the “before” and “after” statuses of the workbook, including tests of the impact of the change as well as regression tests to assure that there were no unintended changes.

3. A valuation process, whether it involves Excel workbooks, commercial software, or customized in-house software, can only be considered fully automated if the actuarial user cannot change the data input, the assumptions, or the formulas used. Changes in input data, assumptions or formulas may be routine (they are done every time the valuation is run) or non-routine. If they are routine, then there must be separate controls around these changes to assure that the correct data, assumptions and formulas are used in the current valuation. If they are non-routine, then they must be tested and locked down before the valuation process starts. For example, if the mortality table used for valuation of a term product is supposed to be re-evaluated every year, then there must be documented evidence explaining why it was or was not changed and why the current assumption is correct for the current valuation. Basing a decision on simple “actuarial judgment” is problematic because it is inadequate as a basis for management oversight, which means that corporate governance is insufficient. However, it is somewhat easier to invoke actuarial judgment if there is a formalized review and sign-off procedure to show that the proper corporate governance has occurred through an independent review of the assumption-setting process. Some



companies may choose to use an “assumption review committee” for this purpose.

4. Complexity is another important factor in inherent risk. In fact, one reason why actuarial processes get so much attention in an examination is that they tend to be the most complex parts of the reporting process, besides being the largest part of the liabilities, and they may be the part that is least understood by the CFO and other members of management. Therefore, because the asset adequacy testing process involves multiple scenarios, customized assumptions, and tasks that are less automated, it will get extra attention in the examination. Similarly, a minimum reserve requirement that involves more complex calculations, such as AG43 or universal life with secondary guarantees, contains more inherent risk than the valuation of more traditional products such as whole life.

## PREPARING FOR THE RISK-FOCUSED EXAMINATION

The simplest thing that an actuary can do to prepare for a risk-focused examination is to try to look at his own situation from the regulator’s point of view. This would involve being able to answer a few routine questions:

1. Where do the regulators need to look? What are the risks the company is facing, both now and in the future? Is the company’s management worried about the right things?

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2. Does the company have an adequate risk management process in place? Is there a formalized process that identifies risks and takes action to mitigate them? What evidence does the company have that the process is working properly?
3. In particular, what evidence does the company have that the reserves are adequate and properly calculated according to minimum statutory standards? How does the appointed actuary know that the reserve calculations are appropriate and accurate?
4. Is staffing adequate and competent, and is corporate governance sufficient to enable the CEO to rely on the actuarial opinion?

Ideally, the company would automatically be prepared for a risk-focused exam through the company's own risk management process (regulatory compliance risk), but if this process is not well developed or less than robust, then actuarial managers may want to consider an independent peer review. ■

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# AG33 Non-Elective Reserve Proposal Update

By John Blocher

The Life Actuarial Task Force (LATF) voted to expose for comment the reserve proposal of the American Academy of Actuaries' (Academy's) AG33 Non-Elective Incidence Task Force. The comment period ended May 14, 2014. Actuaries may want to begin estimating the reserve effect related to any potential revision to AG33 assuming the task force language is adopted. The main part of the reserve proposal is as follows:

1. For non-elective waiver-of-surrender-charge benefits other than mortality-based benefits, incidence rates greater than zero are not to be applied after the earlier of the end of the surrender charge period applicable immediately after the first premium is paid or when the cash value has been depleted.
2. For non-elective benefits other than mortality-based benefits, incidence rates greater than zero for non-elective benefits where it is unlikely that a contract owner would report a claim or make an election (such as collecting one benefit while other more valuable benefits exist in the contract) and which could thereby place a smaller reserve value on the contract's other benefits should not be considered to the exclusion of other incidence rates that would result in a larger reserve.



Insofar as this is considered a clarification of AG33, it will most likely be implemented on a retroactive basis.

In some companies, non-mortality waiver is categorized as an elective benefit with zero incidence rates. The revision will have no effect as incidence rates are already zero.

In companies where non-mortality waiver is categorized as a non-elective benefit, for most valuation processes waiver can be handled by changing the system to only use applicable incidence rates during the initial surrender charge period and zero thereafter.

Correct interpretation of the reserve proposal's second point is that a fully informed contract owner has to be very likely to take the non-elective benefit considering other benefits available in the contract. The contract owner is very likely to take the benefit when the non-elective benefit value is close to the greatest present value of the elective benefits. The bar is high and the burden of proof is on demonstrating that the contract owner collecting the non-elective benefit doesn't "leave money on the table."

Contract owners still hold the option of whether to report the incidence and whether to make a claim after a non-mortality incidence has occurred. If the contract owners don't see favorable relative value in the non-elective benefit compared to other benefits available in the contract, they are not very likely to make a claim.

Prior to final adoption of any revision, actuaries may want to begin estimating the reserve effect assuming the task force reserve proposal is adopted. ■



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# International Actuarial Association Report

By Jim Milholland



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**H**ow many discount rates does it take to value a liability? “Too many” is the response of the actuarial profession, which has suggestions for improving the overly complex requirements of the International Accounting Standards Board (IASB) in its proposed new accounting standard for insurance contracts. These suggestions and other activities to get ready for the new standard were the main topics of discussion of financial reporting actuaries at the meeting of the International Actuarial Association (IAA) in Washington, D.C. in April. Also of interest to financial reporting actuaries are the activities of the IAA in support of the International Association of Insurance Supervisors (IAIS), which has a tight deadline to develop proposals for capital requirements for insurers.

## SIMPLIFYING THE PROPOSAL

(Fair warning—the following paragraphs presume a working knowledge of the IASB’s June 2013 revised Exposure Draft Insurance Contracts (the ED).) One of the major concerns found in comment letters to the ED was the complexity of the proposed requirements, especially as they relate to participating contracts. The specific concerns were about:

- Multiple models, depending on the nature of the participation feature. Linked contracts would be in effect unbundled by an approach called “mirroring,” but other participating contracts would use a discounted cash flow model.
- Multiple discount rates because of different rates, over time, for the contractual service margin (CSM) and for cash flows. Furthermore, cash flows in some models would be separated into:
  - Those that had asset dependency,
  - Those that did not, and
  - Those that relate to options not otherwise separated (e.g., embedded derivatives) all with potentially different discount rates.

At a session of the Insurance Accounting Committee (IAC), a member of the German Actuarial Association (DAV) presented its suggestion for simplification and improvement of the proposals. The DAV recommends:

- That the IASB adopt a single model—the discounted cash flow model—for all contracts that use the building blocks, and
- That there should be no distinction among the discount rate used for cash flows or the CSM.

The DAV provided Excel files with numerical examples covering different types of contracts. They are available for interested parties. [<https://aktuar.de/unsere-themen/rechnungslegung/>]

Another source of concern with the ED is the mandated use of other comprehensive income (OCI) for the difference in the value of the liabilities using a fixed rate and the value using a current rate. The purpose of the use of OCI is to match the treatment of supporting assets. If the insurer measures assets at fair value through OCI (FVOCI), the investment income is the amortized-cost basis income, but the assets are at fair value on the balance sheet. The difference between the fair value and the cost basis of the assets is in OCI. The corresponding treatment for insurance liabilities is to measure them at a fixed rate, the rate analogous to the amortized cost basis for investments, for the purpose of determining the interest expense in profit or loss, and then to measure them again at current rates for the balance sheet. The difference in the two measurements would be in OCI.

The required use of OCI was not well received when the ED was published. Nearly all commenters on the ED saw that use of OCI is more appropriate for some situations than others; i.e., it works well when investments are measured at FVOCI, but not as well when assets are measured at fair value through profit or loss (FVPL) or when the insurer has hedging instruments that are measured at FVPL. In response to many comment letters requesting optional use of OCI, the IASB in its re-deliberations has tentatively decided that the effect of changes in discount rates should be either through profit or loss (P&L) or through OCI, at the option of the company, for portfolios of contracts.

The DAV believes that the measurement of liabilities should coincide with the accounting for the assets in



order to reflect the characteristic link between assets and liabilities for participating contracts. In this sense, the OCI issue has to be considered together with a fully unlocked CSM in the following ways:

1. To avoid accounting mismatches, the use of OCI for insurance liabilities should follow the accounting for the assets. If the insurer measures assets at FVOCI, it would use the amortized cost-basis rate to determine the interest expense for P&L, and it would use the current rate to measure the liabilities for the balance sheet. The difference between the two measurements would be in OCI. If the insurer measures assets at fair value through profit or loss (FVPL), the liability discount rate would be the current rate both for the interest expense in profit or loss and for the balance sheet. If the insurer has a mix of assets with different treatment or if it changes its investment approach over time, the discounting of liabilities would use blended rates. This suggestion leads to a blended rate for discounted cash flows, if the insurer measures some supporting assets at FVOCI and others at FVPL.
2. The DAV also suggest that the effects of changes in discount rates for rates that are estimates should be treated like other changes in estimates; namely, they should be offset by a change in the CSM. The rates that are estimates are those that are not supported by returns stemming from covering assets, i.e., rates resulting from reinvestments (in particular but not

limited to those beyond the term of the investment portfolio).

The DAV believes that, in combination, these suggestions would lead to a consistent accounting of assets and liabilities in the P&L and balance sheet.

It is apparent that the suggestions of the DAV, especially the use of a single model, are a net simplification, but they do create some complications of their own. Projecting blended discount rates may be tricky and probably would need actuarial guidance. It is also necessary to settle on a growth rate and a discount rate for variable or unit-linked contracts.

The suggestions were well received by the members of the IAC, but the committee has not endorsed the suggestions. Several members commented that they were pleased to see the proactive leadership of the DAV. Undoubtedly the suggestions will influence the thinking of the IAC as it moves forward. Although there may not be a formal request by the IASB, the IAC and its members are in regular contact with IASB members and staff.

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## PREPARING FOR THE NEW STANDARD

Perhaps the major activity of the IAC (actually of the Education and Practice Subcommittee) for the foreseeable future will be publishing educational notes on the new insurance standard. These are referred to as International Actuarial Notes, or IANs. The committee has no fewer than 25 IANS slated for publication, although the exact number will depend on how some topics are grouped; i.e., some may be combined. Most of these, about 12, are updates of IANs on International Financial Reporting Standard (IFRS) 4 to reflect changes resulting from the new standard. Changes may be minor, as in the case of the IAN on product classification, since the proposed new standard is only a little different from IFRS 4 on this topic. In fact the committee hopes to have four IANs drafted and ready for review at the next IAA meeting in September.

As has been mentioned in these reports, the IAA has two publications available for purchase that are must reading for actuaries planning for the new accounting standard. The IAA has a third work in process that will likewise be valuable for financial reporting actuaries. A short description of each follows.

*Stochastic Modeling—Theory and Reality from an Actuarial Perspective* was published in 2010. Not limited to considerations for IFRS, it will nonetheless be helpful to actuaries who will use stochastic modeling to get mean expected cash flows for the first building block.

*Discount Rates in Financial Reporting: A Practical Guide* was published last year. Also not limited to IFRS, it is a valuable primer on the construction of discount rates.

A monograph on the adjustment for risk is slated for publication shortly after the IASB adopts the new insurance standard. The monograph is intended to help the actuary bridge the accounting guidance to standard actuarial practices.

## CAPITAL REQUIREMENTS

The IAIS is field-testing an approach for measuring capital adequacy for the 10 global systemically important insurers (G-SIIs). This is the so-called Basic Capital Requirement (BCR), which should be finalized in 2014 and likely implemented in 2015. There is a longer-range project to develop an international capital standard (ICS) for broader implementation (i.e., not limited to G-SIIs). The efforts by the IAIS are in response to a request from the Financial Security Board (FSB). The FSB wants a capital requirement for insurance companies that would parallel capital requirements for banks.

The IAA is supporting the IAIS by providing advice and counsel on the development of BCR and ICS. The IAA's support was a topic of discussion of the Collaborative Technical Committee (CTC), which is a group of actuaries from several committees that meet to discuss issues in common. Capital requirements touch on regulatory and ERM topics, to say the least. They can also touch on accounting requirements, particularly if the measurement of available capital is defined and quantified in terms that imply a certain measurement of liabilities. The current thinking is that margins in liabilities are part of capital, so what is needed is a current, unbiased estimate of liabilities, sans margins, sometimes referred to as a best estimate or a central estimate. The stated objective would seem to be met by the proposed measurement of liabilities emerging in IFRS on insurance contracts, with removal of CSM and the adjustment for risk. Members of the CTC agreed that it would be regrettable if capital testing required yet another measurement of liabilities, different from the measurement of liabilities used for insurance regulators for shareholders. On the other hand, the IAIS is not able to wait for the IASB to complete its work and will have to declare itself soon. The next few months should reveal if financial reporting actuaries will have yet another measurement of liabilities. Regardless, the IAA may develop an International Standard of Practice related to the actuary's involvement with BCR or ICS. ■

# Introducing a New Practice Note on Purchase GAAP Accounting

By Steve Malerich

In early April, the Life Financial Reporting Committee of the American Academy of Actuaries released an exposure draft of a practice note titled, “Treatment of VOBA, Goodwill and Other Intangible Assets under PGAAP.” Depending on the extent of comments received in April and May, the final practice note should be released about the time this issue reaches your mailbox.

The practice note consists of five parts:

- A. Background
- B. Calculation of Value of Business Acquired, Initial Measurement
- C. Tax Considerations in the Calculation of Initial VOBA
- D. Other Items on the PGAAP Balance Sheet
- E. Subsequent Measurement

And four appendices:

- I. Distributable Earnings and VIF
- II. Additional Tax Issues
- III. Summary of Formulas
- IV. Glossary of Abbreviations and Acronyms

As implied by its title, the practice note addresses only intangible assets; it does not address the normal GAAP liabilities, which are typically valued under other accounting standards (FAS 60, FAS 97, etc.) even after a purchase.

## PART A. BACKGROUND

The practice note begins with some of the history leading to current standards in accounting for business combinations, commonly called purchase accounting, purchase GAAP or simply PGAAP. It then answers some of the fundamental questions involved in accounting for a business combination, including:

- When is PGAAP applied?
- How is a business defined for purposes of PGAAP?
- What is the objective of PGAAP with respect to measurement of assets and liabilities at the acquisition date?

## PART B. CALCULATION OF VALUE OF BUSINESS ACQUIRED, INITIAL MEASUREMENT

Fundamental to accounting for any business combination involving insurance operations is the value of



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business in force at the time of purchase. Among the various terms used by actuaries, the practice note uses “value of business acquired” (VOBA) to represent this value.

Under the accounting standards, VOBA is defined as the difference between the GAAP book value (GVL) and the fair value (FVL) of the liabilities at time of purchase. The practice note recognizes two common methods for determining VOBA:

1. Determining VOBA from the value of future distributable earnings; and
2. Determining FVL as a value of future liability cash flows, and then subtracting FVL from GVL.

Recognizing that most actuaries concerned with PGAAP are also dealing with business combinations subject to U.S. statutory accounting and tax laws, and that such requirements are key drivers of distributable earnings, the practice note includes significant reference to U.S. statutory and tax accounting, beginning with the determination of an appraisal value of the in-force business. This section then lays out basic formulas for the calculation of PGAAP’s initial VOBA from a statutory appraisal value.

After a brief note on the equivalent result that could be expected under the two methods, this section proceeds to address several considerations in the second method’s direct calculation of FVL. The section ends with a note that there can be no VOBA associated with business for which GAAP liabilities are already carried at fair value.

### PART C. TAX CONSIDERATIONS IN THE CALCULATION OF INITIAL VOBA

Though GAAP (including PGAAP) valuation of assets and liabilities is on a pre-tax basis, it is tied in some way to prices, and prices take into consideration the tax characteristics of assets or liabilities. Taxes, therefore, affect VOBA.



In the United States, taxes depend on the purchase price, the nature of a purchase, and certain options that are available in the tax code. Among the considerations:

- Is the business included as part of the purchase of a legal entity or is it purchased without acquiring the company?
- Is the business subject to section 848 of the tax code (DAC tax)?
- What options are available under the tax code?

Tax and GAAP specialists sometimes use different terms for similar concepts. To minimize confusion that can arise when communicating across specialties, the practice note preserves the language of both and ties them together.

Since GAAP defines fair value from the perspective of a market participant, calculation of VOBA needs to consider taxes from that point of view, which might differ from the specific tax situation of any particular transaction.



This section looks at various tax situations that are commonly encountered in the purchase of insurance business in the United States and untangles the interdependence between purchase price and taxes. New terms are introduced as appropriate for each situation, and specific variants of Part B's general formulas are provided for each situation.

To preserve a connection between general formulas and specific formulas for different situations, the specific variants preserve the same general formula numbers, using unique subscripts for each variant. For example, variants of Part B's general formula 3 for calculating VOBA appear in Part C as formulas 3.s, 3.a, 3.a.i, 3.a.ii and 3.a.iii. In most cases, the specific formulas appear simpler than the general formula but the simplifications vary from one tax situation to another.

## PART D. OTHER ITEMS ON THE PGAAP BALANCE SHEET

This section addresses the initial calculation of GAAP goodwill and briefly addresses other intangible assets that might be encountered in a business combination.

## PART E. SUBSEQUENT MEASUREMENT

Different intangible assets are subject to varying requirements subsequent to the date of acquisition. This section addresses amortization of VOBA and other amortizing intangible assets. It addresses goodwill and other intangible assets that do not amortize. It also addresses loss recognition and impairment testing of the various intangible assets.

## APPENDICES

Appendix I goes into greater detail about some of the finer points involved in a statutory appraisal of in-force business and two common approaches to measuring it, starting with either discounted distributable earnings or with discounted statutory book profits. Among the items considered here: book profit; options and guarantees; required capital; and discount rate.

Appendix II provides additional information about some of the more complex tax situations addressed in Part C—purchase of a company when the buyer and seller agree to an Internal Revenue Code section 338(h) (10) election; and purchase of a business that does not also involve the purchase of a company (typically involving reinsurance of the in-force). It also includes examples illustrating the development of a PGAAP balance sheet under different situations and interpretations of the accounting guidance.

Appendix III lists all formulas introduced in Parts A through E of the practice note. Formulas are grouped according to the conditions to which they apply and reference is made to the place where each formula is introduced.

Appendix IV is a glossary of all abbreviations and acronyms introduced in Parts A through E of the practice note. As with formulas, reference is made to the place where each is introduced. ■

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