SOCIETY OF ACTUARIES Financial Reporting Section

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MCEV: The Right Reporting Standard for Volatile Times?

by Craig A. Buck and Stephen J. Bochanski

The goal of all financial reporting is to give investors a window into a company's performance, allowing them to compare it with performances of both industry peers and outside companies. The goals of any financial reporting regimen—including fair value reporting—are to provide transparency, consistency and meaningful results.

But in light of the current global crisis, the debate has intensified over the advantages and disadvantages of moving to a full fair value mark-to-market accounting regimen for banks and insurance companies. Supporters of fair value argue that mark-to-market measures better reflect the values of assets and liabilities on balance sheets, thus giving investors and regulators better insight into a company's risk profile.

Critics of fair value, on the other hand, point to its role as an exacerbating factor in the financial crisis. They argue that fair value, by leading to excessive and artificial volatility, added to the downward spiral. They note that liquidity and solvency may be driven by transient fluctuations that don't reflect the fundamental values of assets and liabilities. And they point out that certain investors can buy-and-hold these assets rather than be forced to trade them at discounted prices.

The potential implications of this debate are even more pronounced in the life insurance industry, where the long-term nature of assets and liabilities are at odds with market-consistent valuation. In most cases, life insurers are not subject to large-scale on-demand payouts; therefore, they have the flexibility to ride out short-term volatility and stressed markets to a much greater degree than banks and other financial institutions.

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This newsletter is free to section members. Current-year issues are available from the communications department. Back issues of section newsletters have been placed in the SOA library and on the SOA Web site *(www.soa.org)*. Photocopies of back issues may be requested for a nominal fee.

CHAIRPERSON'S CORNER

HOW CAN YOU HELP?

The Society of Actuaries is largely a volunteer organization. Yes, there is staff at the Society's office in Schaumburg and they do a terrific amount of work to support the organization, sections and members. But they can't do it all. From exams to continuing education, to research, it takes volunteers to make everything work. So my question for you is, how can you help?

However, a better question might be, can you afford not to be involved? With all the changes the profession and industry are either undergoing or analyzing, can you and your company afford to sit on the sidelines? With VACARVM a reality and continued discussions on other principle-based approaches to reserves and capital, not to mention IFRS, we could be living through unprecedented times in how we account for insurance. Can you afford not to be involved with the research and education related to these and other pertinent issues?

There are many opportunities to be involved in and to support this Section's and the profession's efforts in research and education. The Financial Reporting Section Council is working hard under the leadership of Sue Deakins and Ronora Stryker to conduct relevant research on PBA, IFRS and other important topics. Do you need to be a researcher to help with research projects? NO!! A Project Oversight Group (POG) manages each research project sponsored by the council. The role of the POG is to work with the researcher and SOA staff to make sure the research is meeting the objectives of the project. They also review and provide input into draft research reports. The commitment to serving on a POG is typically some conference calls as well as reviewing draft copies of the report. Is there an area of interest where you would like to serve on a POG?

Another potential way to be involved in research is to be a part of an Actuarial Task Force (ATF). This concept has been used to study the impact of PBA, the IFRS Discussion Paper and soon, the yet to be released IFRS Exposure Draft. The commitment is to model a given product under the current and proposed regulations to determine the impact of the regulation. I believe this type of research is critical to providing quality input to those drafting new regulations and will likely only increase in the coming years.

In the area of education, the section council is responsible for planning sessions at the SOA's spring and annual meetings. This involves determining the topics and recruiting speakers for the sessions. Would you like to volunteer to speak at a session? How about deciding what sessions to offer and/or recruiting speakers? The section council has also been working hard to provide alternative continuing education opportunities, e.g. webcasts. Do you have an idea for a webcast topic? Would you be interested in presenting on a webcast or helping to organize one? Thanks to the great staff at the SOA, the logistics of putting on a webcast are really quite easy.

By the time you read this, you will likely have received an invitation to join a Financial Reporting Section group on LinkedIn. This is a social networking tool that will allow Section members to discuss issues with other Section members. It will allow for timely sharing of thoughts and ideas. This may be the easiest way to become involved. Share your thoughts and concerns about current issues and have a discussion with other Section members on how they are thinking about relevant topics.

Of course the number one way to become involved is to run for the Section Council. This can be an exciting and very rewarding experience. You are involved with discussions on all the topics I mentioned above. You are helping shape the service the Section provides to its members. You get to work with and make contacts with some great people and learn from them as well. It provides you an opportunity to get others' view points and practice negotiation skills to reach a common objective. It gives you an opportunity to improve your leadership and project management skills. These are skills that will benefit both you and your employer.

In his presidential address at last year's annual meeting, SOA President Cecil Bykerk talked about the importance of volunteering and the benefits that one can gain from such activities. Besides those I have mentioned above, there is also the concept of giving back to the profession that has been so good to us. As the character Chico Escuela said on Saturday Night Live, "Baseball been bery, bery good to me." I think we can all say the actuarial profession has been very, very good to us, so please consider giving back. The Financial Reporting Section Council would love to have your assistance in providing quality service to our members. If you are interested in becoming involved, please send me a note and we will see what we can do to get you involved. ■

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The current financial crisis has revealed that fair value is difficult to estimate and often unreliable, especially when there is no liquid market for a particular asset.

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No where is the debate more evident than in the actions of the CFO Forum (a group of major European insurers) in the last year. In June 2008, the CFO Forum proposed that its members begin reporting Market-Consistent Embedded Value (MCEV), the European life insurance industry's first attempt at a full fair value reporting framework, by the end of 2009. But now in the wake of the tumultuous events of the past year and the challenges it has caused for MCEV, the CFO Forum has decided to delay mandatory reporting of MCEV until 2011.

MCEV is intended to increase transparency through the use of a consistent earnings valuation framework and to give investors a better understanding of the risk in their business. While MCEV does bear some similarities to International Financial Reporting Standards (IFRS) and the United States' Generally Accepted Accounting Principles (U.S. GAAP), it introduces its own set of challenges.

This article examines some of the shortcomings of MCEV reporting as it is currently constructed—particularly in periods of heightened volatility—and recommends some possible improvements that the CFO Forum is likely to consider.

FAIR VALUE ACCOUNTING: ITS ORIGINS AND IMPETUS

Before turning our attention to MCEV, it is important and useful to look at the history and background of the rise of fair value accounting.

The notion of fair value in accounting is not a new one. It has long been used in accounting for inventory, where merchandise is accounted for initially at cost and then adjusted to reflect the changing market value. Banks and insurers, however, traditionally accounted for the assets and liabilities on their balance sheets using cost-based accounting methods.

But as has so often been the case, a financial crisis precipitated changes in accounting and regulatory practices. In the late 1980s, in the wake of the savings and loan (S&L) crisis, a consensus began to form that historical cost-based accounting should be replaced by mark-to-market valuations. The S&L crisis, critics pointed out, represented the failure of cost-based accounting methods. In that crisis, which was especially pronounced in Texas and the Southwest, a fall in asset values was preceded by a collapse of oil prices. Falling energy prices, in turn, ought to have indicated a sharp falloff in future cash flows, but cost-based accounting methodology masked the weakening balance sheets at the S&Ls by allowing losses to show up gradually through negative net interest income. This delay merely postponed the eventual collapse of banks throughout the region and only exacerbated the economic fallout.

Mark-to-market measures, it was said, would have revealed the problems sooner. As a result, banks and other financial companies began adopting those methods. Initially, these valuations were embedded in the notes of financial statements. But a decade later, in the aftermath of the Enron scandal, fair value measurement received an additional impetus. The criticisms and insights from the Enron scandal culminated in the Financial Accounting Standards Board's issuance of FAS 157: Fair Value Measurements, which provides guidance on valuation techniques to be used for both financial and nonfinancial assets and liabilities.

HOW "FAIR" IS FAIR VALUE? IMPLICATIONS AND SHORTCOMINGS

While fair value measurement is a laudable and relatively simple concept in the abstract, its application under real market conditions—particularly in the recent distressed and near-frozen credit markets—is anything but. Even some of the strongest proponents of fair value measurement have been taken aback by the shortcom-

ings of the standard in current conditions. The current financial crisis has revealed that fair value is difficult to estimate and often unreliable, especially when there is no liquid market for a particular asset.

The first choice in determining the fair value of an asset is to use a reliable quoted price for an identical asset in an active and liquid market. A key decision is how to determine whether a quoted price is reliable or not. In some markets, it is obvious that trading of a particular asset is too thin to be considered reliable. In other markets, prices may be considered reliable for certain assets or maturities but not all. Reliability does not include an assessment of whether prices are high or low relative to some fundamental value. Rather, reliability hinges on whether a particular price is reproducible and tradable. In the current market, there seems to be a great deal of reluctance to declare that observed market values have become unreliable.

The current market conditions are surely extraordinary ones, and no one can predict if and when the markets will recover and valuations will return to more normalized levels. But in past distressed markets, reported losses have often proven to be misleading, as they are often temporary, reverting to more normal valuations once markets recover. This becomes irrelevant under a fair value accounting regimen, since all holders of an asset are treated equally, even those companies such as insurers who have the ability to hold on to the asset. Markets such as the current one are also vulnerable to the actions of rogue traders, who further distort values. Reported markdowns in asset prices have the effect of driving down prices even further and increasing systemic risk.

Is the volatility we are seeing real or is it a byproduct of the reporting regimen? Volatility, as this crisis has revealed, possesses a dual nature: One, which might be called "fundamental" volatility, reflects the asset's underlying fundamentals (cash flow projections, credit quality, etc.), while the other, "artificial" volatility, is a result of the feedback loop in the marketplace. When the feedback is great—as is the case right now—market participants' reactions are not based on fundamentals but on second-guessing other participants' decisions.

REGULATORY AUTHORITIES' REACTIONS

Given the controversy surrounding the role of fair value accounting in magnifying the financial crisis, market participants have called on the Securities and Exchange Commission (SEC) to suspend the rules. While the SEC maintains that fair value accounting did not play a "meaningful" role in the crisis, the agency has been troubled by some of the unintended consequences of adopting fair value measurement and has issued additional guidance. Meanwhile, the Financial Accounting Standards Board (FASB) has issued further guidance on fair value and impairment of assets in illiquid markets and when banks must take losses.

Proponents of fair value argue that the volatility we are witnessing has been in the marketplace all along but was muted by cost-based methods of accounting. While that may be true, it is difficult to make the case that distressed sales truly reflect rational pricing at the heart of the efficient market theory. Moreover, it is unclear whether conditions will stabilize as parties become more familiar with fair value, although that is possible. Still, it needs to be emphasized that despite the efficient market theory, market prices are never truly "rational"; they have a bias toward cyclicality, reflecting over-exuberance at market tops and over-pessimistic projections at bottoms.

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MCEV: FAIR VALUE FOR THE INSURANCE INDUSTRY

MCEV is the European life insurance industry's first attempt at a broad-based fair value reporting regimen. MCEV guidance and principles were published in June 2008 by the CFO Forum. Created in 2002, the CFO Forum is a high-level industry group, consisting of the chief financial officers of the major European listed (and some unlisted) insurance companies. The CFO Forum meets several times a year to discuss issues relating to new reporting regulations and how they can provide greater transparency for investors.

In May 2004, the forum announced the launch of the European Embedded Values (EEV) principles, a joint initiative designed to improve the consistency and transparency of embedded value reporting. Although EEV represented a major step in reducing inconsistencies between the different approaches taken by different European insurers, differences in methodology still remained. So in June 2008, the CFO Forum adopted MCEV.

> While fair value, in theory, is a laudable goal for financial companies, it may not work for the insurance industry where deep and liquid markets for liabilities are not observable.

Mandatory compliance with MCEV for CFO Forum members was set to take effect at the end of 2009. Early compliance by member companies, and compliance by nonmembers, has been encouraged, and a number of such insurers are already reporting under MCEV. However, in late May 2009, the CFO Forum announced it is deferring mandatory MCEV reporting for member firms until 2011. The CFO Forum indicated that the financial crisis has revealed several challenges and that significant amendments to MCEV are possible.

MCEV is intended to provide: 1) a shareholder perspective on value, which is the present value of future cash flows available to the shareholder, adjusted for the risks to those cash flows; 2) a market-consistent approach to financial risk; 3) greater focus on disclosing cash emerging from covered business; and 4) disclosure of combined group MCEV information.

MCEV requires that insurers use a standardized mark-to-market measure, thus allowing comparison between insurers, and that investment profits be recorded as they occur, rather than estimating their future returns. Other key features of MCEV, as it is currently designed, require that life insurers use a risk-free assumption for future rate of return on investments when projecting future returns from policies. When yields rise (reflecting a perception of greater performance risk of the assets an insurer owns), this penalizes companies reporting under MCEV (although this may be offset by implied increase in performance risk of the insurer's liabilities). In an environment of rising corporate bond spreads, the impact is especially great upon insurance companies whose major line of business consists of annuities, since MCEV fully captures the implied market perception of increased asset risk but does not allow for full reflection of the increased performance risk of the insurer's liabilities.

MCEV'S SHORTCOMINGS

MCEV, as it is currently constructed, may provide a less than accurate depiction of an insurer's financial performance in current conditions. It has long been the view of most investors that life insurers offer a haven to policyholders from the kind of volatility that we are seeing in financial markets for the very reason that insurers can take a long-term view of value. The fact that an asset is underwater currently is less meaningful if the principal reason for that is a lack of liquidity in the market as opposed to the risk of default.

Unlike a bank or a mutual fund, where the institution's liabilities are on-demand, liquidity is less of an issue for life insurers, where only a fraction of the liabilities are on-demand. In the current crisis, many so-called "money good" assets are trading below par — not as a result of a

credit risk but because of liquidity issues. Many of these assets trade at forced or perceived liquidation values, rather than reflecting the real, underlying economic value. MCEV is likely to accelerate this unhealthy trend. To be sure, life insurers do have some liabilities that are in essence on-demand deposits. But the notion of full liquidity as being the true measure of performance and value in the life insurance industry is mistaken.

While fair value, in theory, is a laudable goal for financial companies, it may not work for the insurance industry where deep and liquid markets for liabilities are not observable. The MCEV reporting regimen requires the insurance company to mark its assets to market based on observed trading values, but at the same time, it discounts the firm's liabilities at a subjective and arguably arbitrary discount rate (a swap or risk-free discount rate). MCEV reporting also sets no credit risk on the liability side and makes no allowance for the illiquid nature of insurance liabilities, treating them as if they were on-demand and at no risk of default.

MCEV: POSSIBLE IMPROVEMENTS

MCEV is an important step toward bringing greater consistency and comparability to the performance and value of life insurance companies. But it is only a first step. There are improvements that can be made to the reporting standard to help better reflect the assets and liabilities of life insurance companies.

One such improvement might be to add a liquidity premium to the liability discount rate. One could argue that insurers value certain assets more highly than the market, as they do not need to make any allowance for liquidity risk and certain elements of credit risk provided their insurance liabilities are sufficiently illiquid. Adding a liquidity premium to the liability discount rate is an alternative way of achieving the same effect. We believe that the financial crisis has underscored the role the liquidity component plays in credit spreads; going forward, credit spreads may need to be split into liquidity and default risk components. While this exercise is easier said than done, it is essential if we are to reflect the true liquidity profile of most life insurance liabilities.

We believe that the financial crisis has underscored the role the liquidity component plays in credit spreads; going forward, credit spreads may need to be split into liquidity and default risk components.

In fact, several companies made such an adjustment for liquidity premium in their 2008 Embedded Value results. While there is no clear consensus on a method for determining the spread, and there is a wide range of values being applied, there are some methods gaining traction. One of these methods involves observing the difference between corporate bond spreads and the trading value of credit default swaps. Another possibility relies on the spreads observed on European covered bonds, which have similar default and liquidity characteristics to insurance liabilities. However, there are still issues with these approaches beyond the magnitude of the adjustment, such as which products should receive the adjustment and for how long the current liquidity premium should be applied.

Other possible improvements might be to include a provision for nonperformance (i.e., default) on the part of the insurance company. A provision for nonperformance risk is also consistent with the direction that U.S. GAAP and IFRS appear to be heading. This remains quite controversial, however, since a company that faces distress — and thus has a higher probability of defaulting on its obligations — would see the value of its liabilities decrease as a result. This could potentially lead to the counterintuitive outcome of a higher MCEV for the distressed firm.

There is work to be done in the area of consistency as well. Currently, there are gaps in the principles that allow a wide range of practices to be adopted and thus reduce comparability of MCEV results. This inconsistency weakens the value and credibility of MCEVs. A

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… the MCEV principles were designed during a period of relatively stable market conditions and their application during the current turbulent markets may lead to misleading results.

balance must be struck between the desire for consistency and the fear of too much prescription, which has thus far proven elusive. Where a consistent approach is not achieved, additional disclosures and sensitivities should be provided to enhance the consistency of all MCEVs.

The CFO Forum has acknowledged that further improvements and guidance are indeed necessary. The group recognizes that the MCEV principles were designed during a period of relatively stable market conditions and their application during the current turbulent markets may lead to misleading results. The CFO Forum members announced in December 2008 that they were working to develop further guidance for the application of MCEV principles. And the recent decision to defer mandatory adoption is a clear and welcomed signal that adjustments to the standard are coming.

SUMMARY: MARKET CONSISTENCY IN A TIME OF TURMOIL

The goals of financial reporting are to present an accurate picture of a company's performance and provide comparability between companies. MCEV is an important step forward in that process, but it is not the endpoint. Additional fine-tuning is needed — and appears to be forthcoming — in anticipation of more widespread use of similar fair value techniques for insurance reporting, both internationally and in the United States.

The credit crisis of the past year has raised serious questions about the role that mark-to-market measures played in exacerbating the crisis. Calibrating financial risk to the market — in theory — eliminates the issue of subjective judgment by company management. And mark-to-market may work well reflecting the underlying fundament. But in times of crisis, where liquidity has dried up, mark-to-market values may not reflect future earning power.

The notion of fair value reporting would appear to have less relevance to insurers, which have the ability to hold assets, particularly in distressed markets. Given the market's reception of results from early adopters of the standard in Europe and the United Kingdom, it would appear that investors sense that comparability of companies under MCEV remains problematic.

Market prices are double-edged, reflecting underlying fundamental conditions in part, but also affecting those very conditions, particularly when the time and decision horizons of the market participants are foreshortened as they have been during the credit crisis. The current market is skeptical and apprehensive of all financial instruments; assumptions of corporate default rates have risen to more than 5 percent, revealing the doomsday mentality that has taken hold of investors everywhere. The market, rather than being a reliable reflection of underlying value and pricing, turns into a hall of mirrors. Investors are swept up in a relentless downward spiral. In this case, the reporting regimen not only reflects volatility but also has become an agent of that volatility.

FASB/IASB INSURANCE PROJECT MEASUREMENT OBJECTIVES

by William Hines and Leonard Reback

The U.S. Financial Accounting Standards Board (FASB) and the International Accounting Standards Board (IASB) are working on a joint project to produce a new accounting standard for insurance contracts. The new accounting standard would replace the existing GAAP accounting guidance for insurance contracts under FAS 60, FAS 97, FAS 113 and FAS 120. It would also replace the existing International Financial Reporting Standards (IFRS) contained in IFRS 4. This article discusses the measurement objectives being considered by the Boards.

IASB generally meets once every month for three or four days. Over the course of their meetings, Board members discuss various projects, and of late the insurance contracts project is usually among the projects discussed. FASB generally meets one day each week. Topics covered vary, but the insurance contracts project is usually discussed at least one weekly meeting each month. In addition to their usual meetings, the Boards occasionally have joint meetings at which they discuss joint projects, such as insurance contracts, and attempt to resolve differences in opinion between the two Boards.

At the February IASB meeting and at a February meeting of the FASB, the Boards considered five candidates for the measurement attribute for insurance contracts. These were:

1. **Current Exit Value**—as described in the IASB Discussion Paper.[1]
2. **Current fulfillment value**—with margin for risk but not service.
3. **Current fulfillment value**—with margins for risk and service, calibrated to the price paid by the consumer.
4. **Current fulfillment value**—with a single margin (not split into components), calibrated to the price paid by the consumer.

5. **Unearned Premiums**—for pre-claims liabilities on short-term contracts.

Current exit value is defined as, "The amount the insurer would expect to pay at the reporting date to transfer its remaining contractual rights and obligations immediately to another entity."[2] It is the value in a hypothetical arms-length exchange between willing buyers and sellers. The value is based on a market participant's perspective. This is the method that was described in the IASB Discussion Paper, but as of the June Board meetings, both Boards have decided not to pursue this method further.

Current fulfillment value is defined as, "The expected present value of the cost of fulfilling the obligation to the policy holder over time."[3] It is the value in the normal course of the insurance business where the insurer fulfills its obligations to the policyholder as contemplated in the insurance contract. The value is based on the insurer's perspective.

Unearned Premium is defined as, "The part of the premiums for the unexpired part of the insurer's

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FOOTNOTES:

[1] International Accounting Standards Board, "Discussion Paper Preliminary Views on Insurance Contracts," *http://www.iasb.org/Current+Projects/IASB+Projects/Insurance+Contracts/Discussion+Paper+and+Comment+Letters/Discussion+Paper+and+Comment+Letters.htm*

[2] International Accounting Standards Board, "Candidate measurement approaches – tabular comparison (Agenda paper 10E)", Information for Observers, from February, 2009 IASB Meeting, *http://www.iasb.org/Meetings/IASB+Board+Meeting+18+February+2009.htm*

[3] Ibid.

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contractual obligation, subject to a liability adequacy test."[4] This measurement candidate is meant to apply only to short duration, pre-claim liabilities. It is the value based on the pricing expectations of the entity. While this approach is generally applicable to non-life and health insurance, its applicability to life insurance would be limited and thus will not be explored further in this article.

While current exit and current fulfillment values are defined from different perspectives, their calculations are quite similar. It is in the calibration and frequency of resetting the valuation assumption in which they differ.

CALCULATION OF LIABILITIES

Both measurement objectives can be calculated using the three building blocks noted in the IASB Discussion Paper: future cash flows, the time value of money, and a margin. Both measurement objectives would use *current* estimates of expected future cash flows. The cash flows are to be discounted to reflect the time value of money. The discount rates are to be consistent with observable current market prices, capturing the characteristics of the liability. A margin is to be added to reflect the uncertainty of the expected cash flows, to calibrate the liability at issue to the policyholder consideration under the contract and potentially other elements.

What this means for insurance contracts where the liability cash flows do not depend on the performance of the associated assets, such as for term insurance contracts, is that the value might be calculated by discounting a single "current" scenario of cash flows at market consistent or some other set of interest rates, plus a margin reflected either in the cash flows, the discount rate, a combination of the two, or as an additional value. This is similar in nature to the calculation of the benefit reserve under SFAS 60 for such contracts. The actuary would still need to consider whether incorporating multiple scenarios for assumptions such as mortality, morbidity or lapses would materially impact the liability. The cash flows and the margin may differ depending on whether the measurement objective is current exit value or current fulfillment value, however, the basic calculation uses the same three building blocks; a current estimate of future cash flows, the time value of money, and a margin.

Likewise for contracts where the liability cash flows depend in some way on the performance of the underlying assets, the building blocks are the same. For these types of contacts, a multi-scenario or stochastic approach may be required. The inputs to the calculation and the margins may differ as with the term insurance contract. Inputs for future cash flows for which observable market information is available are to be consistent with observed values. This primarily means that interest rates should be based on observed current market rates.

Inputs for which observable information is not available are calibrated differently for each measurement objective. For current exit value, the inputs are based on an entity's expectation as to what a market participant would require. For current fulfillment value, the inputs are based on the entity's own perspective. This would primarily affect the assumption as to expense cash flows, but may also affect other cash flows.

Another area where current exit value and current fulfillment value may differ is in the calculation of the margins. Under current exit value, a risk margin and a service margin are included based on the amount a market participant would charge for bearing risk or performing services under the contract. In addition, FASB and IASB have both taken a view that gains at issue should be avoided. A pure current exit value calculation would permit gains at issue if the calculated liability at inception was less than the initial premium. In order to avoid a gain at issue, the current exit value calculation that was being considered by the Boards was modified to add a residual margin that would eliminate any gain at issue.

Under current fulfillment value, the risk margin is not based on the price a market participant would charge, but rather on the cost to the entity of bearing risk. This

FOOTNOTES:

[4] Ibid.

would presumably be based on the cost of holding capital. In addition, a separate service margin may not be required at all. Two versions of current fulfillment value have been considered by the Boards, differing in their margin calculations. One version would calculate a risk margin based on the cost of bearing risk each reporting period and possibly calculate a service margin as well. In addition, a residual margin would be required to eliminate any gain at issue. The second version of current fulfillment value would presume that the best evidence of the margin is the contract price, and better information would rarely, if ever, become available in the market. Therefore, under this version of current fulfillment value there would only be a single composite margin. This composite margin would be calculated at inception based on the difference between the initial premium (possibly net of relevant acquisition costs) and the present value of future cash flows. The composite margin would not be recalculated each reporting period but rather amortized in some manner.

ACQUISITION COSTS

Both FASB and IASB have taken a preliminary view that there should not be a gain at issue. Thus, a residual or composite margin would need to be added to the initial liability calculation if that initial liability is less than the initial premium. This residual or composite margin leads to two issues. One issue is how to amortize this margin over time. Through the June meetings, neither Board has taken a view on this issue.

The second and perhaps more important issue is how to define a gain at issue. Should the gain be calculated with or without considering acquisition costs? And if acquisition costs are considered, how would they be defined? On this issue, the two Boards have taken differing views.

FASB has had preliminary discussions on whether the gain at issue should be calculated with or without considering acquisition costs. *If* the gain at issue is calculated without considering acquisition costs, the initial liability may be less than the initial premium and a residual or composite margin would be added to make the liability equal to the premium. To the extent that acquisition costs are incurred, those would be expensed immediately, essentially creating a loss to the extent of acquisition costs. Discussions are still ongoing.

IASB's preliminary view is that at least some acquisition costs should be considered when determining the gain at issue. This would be accomplished by 1) expensing the relevant acquisition costs immediately, and 2) recognizing at the same time revenue equal to the acquisition costs by calibrating the residual or composite margin so that the initial liability is equal to the initial premium less relevant acquisition costs. IASB's preliminary view is that the relevant acquisition costs would be the incremental costs associated with acquiring the contract, such as commissions, overrides, variable issue costs, and perhaps some underwriting costs. But there have been discussions as to whether to use a more expanded definition such as that in the FAS 60 definition of deferrable acquisition costs, which encompasses all costs that are related to and vary with sales of new and renewal contracts. The likely result will be a definition that would avoid the situation whereby an insurer shows an immediate loss, which will likely reverse over time, just because it issued a new contract that is expected to be profitable.

The IASB is committed to producing an exposure draft of an insurance accounting standard at the end of 2009. Decisions regarding the measurement objective are needed during the next month or so, in order to meet this deadline. FASB and the IASB will have a joint meeting in July during which the insurance project will likely be discussed, and hopefully differences in views worked out. Insurance accounting is about to change whether or not the SEC decide that US GAAP will converge with IFRS. The next six months will be an important time for the insurance industry and the actuarial profession. ■

RISK MARGINS: NEW WINE IN AN OLD BOTTLE

by Larry Rubin, Nick Ranson, and Xiaokai Shi

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Risk margins are certainly not a new concept. Though insurance can be viewed in different ways, the essential nature of the business is that policyholders are transferring the risks they could not diversify on their own (or did not want to retain) to an insurance company that is able to pool numerous risks and therefore take advantage of risk diversification. By entering into contracts with insurance companies, policyholders pay a price—premiums or fees—in exchange for a "promise" that they will be reimbursed for potential future losses. In their periodic financial reporting, insurers need to establish a buffer to cover the uncertainties surrounding these potential future losses. Part of this buffer is the risk margin, which insurance companies require as compensation for the risk that future losses may be higher than expected.

There are many different terms associated with this concept in the various financial reporting frameworks, including provisions for adverse deviation, risk margins, margins for uncertainties, risk allowance, and profit margins, to name a few. Although each of these terms may have a different meaning or definition in the context of the relevant financial reporting framework, they generally address the same concept: The requirement to incorporate prudent margins on insurance company balance sheets to help cover uncertainties in both assets and liabilities with regard to the timing or amount of future cash flows and mis-estimates of the expected value of estimated future cash flows.

Now, this old bottle is filling with new wine. Recent developments relating to fair value reporting, economic valuations and principle-based reporting have resulted in new thinking around this old concept. In early 2009, the Society of Actuaries (SOA) published a research report prepared by a team from PricewaterhouseCoopers entitled, *Analysis of Methods for Determining Margins for Uncertainty under a Principle-Based Framework for Life Insurance and Annuity Products*. This paper summarizes various methods for quantifying the margins for uncertainties required under the proposed principle-based framework in the United States. In this article, we highlight some of the key elements of this report.[1]

INTRODUCTION TO RISK MARGINS

In an efficient market without frictional costs or liquidity concerns, risk margins for insurance business should be no different from other financial products; they should correspond to the market price of risk that is reflected in the price at which liability transactions occur.

However, some features of insurance business, such as high frictional costs, illiquidity, the obscurity of insurance liabilities, and the inefficiency introduced by policyholder behaviors, tend to complicate this issue. As a result, risk margins can be interpreted differently by different parties who serve different purposes.

Generally, most existing and proposed frameworks treat the risk margin as a component of insurance liabilities that is established in addition to best estimate liabilities. These best estimate liabilities are the most likely estimate of insurers' future obligations based on various actuarial and economic assumptions, such as mortality, withdrawals, expenses, interest rates, equity market performance, and other policyholder behaviors. Risk margins, on the other hand, are typically intended to create a cushion to cover any random fluctuation or mis-estimation errors in the best estimate liabilities. In addition, companies are typically required to hold capital on top of the best estimate liabilities and risk margins, although the line between risk margins and required capital is sometimes unclear. Generally, risk

FOOTNOTES:

[1] See full report at *http://www.soa.org/files/pdf/research-analysis-life-annuity.pdf*

margins are intended to cover the risk of fluctuations under normal situations, where there are no extreme or severe financial or experience shocks. Required capital, however, is intended as a buffer against more extreme scenarios, which are often referred to as tail events (see chart).

The uncertainties covered by risk margins typically fall into the following categories:

- Random fluctuation in the individual risks or losses arising from pooled insurance policies;
- Uncertainties with regard to the mis-estimate of experience assumptions and the changes in those assumptions;
- Uncertainties around the use of trend assumptions (e.g., mortality improvement); and,
- Uncertainties about the assumed relationships between risk factors (which typically need to be addressed in conjunction with the assessment of diversification impacts in risk aggregation).

Risk margins have tended to be established for regulatory reporting purposes, where they were often prescribed. However, in recent years, there has been a trend towards a principle-based approach which emphasizes entity-specific inputs (with more disclosure and enhanced corporate governance).

There are two distinctive views under which stakeholders are seeking to establish entity specific principle-based solvency and performance measurement reporting frameworks:

- **Liability run-off,** which measures an insurer's ability to meets its obligations under alternative scenarios. In this case, risk margins serve as prudent provisions to cover adverse deviations in future obligations.
- **Exit value**, which measures (on a risk-adjusted basis) the funds that are expected to be available to investors. In this case, risk margins serve as compensation for bearing risk.

The liability run-off view assumes insurance companies keep and maintain the insurance contracts they have entered into with their policyholders until contract termination due to maturity, death, surrenders or replacement. Under this view, risk margins provide security to both regulators and policyholders that insurance companies are able to cover their future obligations over the lifetime of the pooled contracts. US GAAP for traditional products, Canadian GAAP, and the proposed Principle-Based Approach all fall into this category.

The exit value view treats insurance contracts as pooled risks that could be transferred to other market participants. In order for another market participant to accept the contractual rights and obligations of the pooled insurance policies at a reasonable price, an insurance company has to establish and incorporate a certain level of risk allowance within its liabilities. These risk margins compensate the other market participant for taking over the risks associated with the transferred business. Actuarial appraisal valuations, US GAAP fair value reporting, EEV/MCEV, Solvency II, Swiss Solvency Testing, and the currently proposed IFRS for Insurance Contracts all fall into this category.

CONTINUED ON **PAGE 14**

QUANTIFICATION METHODS

Broadly speaking, there are two approaches to determine margins for uncertainty:

- Bottom-up approaches; and,
- Top-down approaches.

Bottom-up approaches quantify the overall margins by adding margins to each individual assumption. Top-down approaches determine the margins on an aggregate basis across all risk types and assumptions, relative to best estimate liabilities or required capital.

Both categories of approach have pros and cons. For example, bottom-up approaches facilitate explicit feedback loops for each individual assumption, which allow management, auditors and regulators to monitor the appropriateness of reserving in light of emerging experience. However, they also pose one particular challenge: Whether and how to take into account the diversification effects between risks. On the other hand, top-down approaches explicitly quantify the margins relative to best estimate liabilities or required capital at an aggregate level, implicitly addressing the diversification issue. However, unlike the bottom-up approaches, top-down approaches do not provide such clear and transparent feedback loops to monitor the deviation of actual experience from expected.

In preparing its report, the PwC research team identified eight major methods to quantify risk margins:

1. **Factor based approaches**—The application of factors incorporated in the reserving process that involve limited actuarial judgment, lack the support of experience studies, or otherwise incorporate unspecified implicit conservatism.

2. **Discount related methods**—Creating margins implicitly by modifying the discount rates (such as net asset returns, risk adjusted returns or stochastic discount factors) used in calculating the insurance liabilities. Depending on the cash flow profile of the business being valued, the modification can be either an addition to or subtraction from the base discount rates.

3. **Judgment based on experience studies**—Margins determined based on experience studies are applied to best estimate assumptions to generate a prudent liability. This method is a bottom-up approach as mentioned above. The prudent margins should be developed to take into account random fluctuations, errors resulting from misestimating the means, and potential errors in assumed experience trends. The level of margins should reflect the magnitude of fluctuations in historical experience for each selected risk factor, with greater uncertainty typically resulting in higher margins.

4. **Stress testing/sensitivity testing**—Margins are quantified by testing risk factors under various extreme scenarios or changing individual assumptions to test the impact of that parameter on the insurance liabilities.

5. **"Quantile" and distribution methods**—This category incorporates various statistical approaches to determine the margins, including the use of confidence intervals or percentile levels of risk factors, conditional tail expectation (CTE), and multiples of the second or higher moments of the risk distribution.

6. **Stochastic modeling**—Building stochastic models for individual risk factors such as economic variables or other non-hedgeable assumptions, including mortality, expenses and policyholder behaviors.

7. **Cost of capital method**—Risk margins are set equal to the required capital multiplied by the excess of the company's weighted average cost of capital[2] over an appropriate risk free rate. This approach is often referred to as the market value margin, and is based on the concept that the risk margin should reflect the cost of holding capital to back the underlying risks being modeled.

8. **Calibration to the capital markets or insurance pricing**—Calibration to capital markets uses infor-

mation available from the pricing of risk in the capital markets. The theory underlying this approach is that, in a deep and liquid market, the market participants are appropriately pricing the risks of the financial instruments they are purchasing. Calibration to insurance pricing involves linking risk margins to the profit margins implicit in insurance premiums. This approach is based on the concept that profit margins reflect an allowance for the risks that the insurance companies are taking in writing the policies.

The full SOA research report includes a more detailed overview of each of the above methods, and a discussion around how they could be applied to quantify risk margins for individual assumptions (including mortality, expenses, expense inflation, asset default risk, policyholder behavior and reinsurance). Additionally, the report provides an assessment of the various methods in relation to key criteria listed in the table below. The definition of each criterion is included in the research report. ■

FOOTNOTES:

[2] Some commentators believe the price of equity capital should be used rather than the weighted average cost of capital.

	Factor-based	Judgement based on experience studies	Stress testing/ sensitivity testing	"Quantile" & distribution	Stochastic modeling	Cost of capital	Calibration to capital markets/ pricing
Consistency with proposed PBR	✗	✓	✓	?	✓	✗	✗
Degree of transparency	✗	✓	✓	✓	✗	✗	✓
Ease of calculation	✓	?	✓	✓	✗	✓	?
Stability of calculations	✓	✗	✓	?	✗	✓	✗
Ease of implementation	✓	?	✓	✗	✗	✓	✗
Calculation accuracy	✗	?	?	?	✓	?	?
Minimizing opportunity for manipulation	✗	✗	✗	✓	✓	✗	?
Reducing over-reliance on historical data	✓	✗	?	✗	✓	✓	✓
Incorporates validation verses historical data	✗	✓	?	✓	✓	✗	✗
Uniformity by size of company	✓	✗	✓	?	✗	✗	✗
Explicitly covers individual risk factors	✓	✓	✓	✓	✓	✗	✗
Allows for consideration of diversification effects	✗	✗	✓	?	?	✓	✓
Ease of communication	✓	✓	✓	✓	✗	✗	✓
Ease of monitoring	✗	✓	?	?	?	✗	✗

✓ Pros | ? Varies by situation | ✗ Cons

REPORT ON THE INTERNATIONAL ACTUARIAL ASSOCIATION

by Jim Milholland

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If it can be said that the actuary's job is to help society cope with financial uncertainty, then at no time has it been more apparent than now how important that job is. The global actuarial response to an uncertain and changing economic environment was a recurring theme in the meeting of the International Actuarial Association (IAA) in Tallinn, Estonia, in the last week of May.

RESPONDING TO THE GLOBAL FINANCIAL CRISIS

In response to the global recession, the IAA formed an ad hoc task force that produced a document entitled, *Dealing with Predictable Irrationality—Actuarial Ideas to Strengthen Global Financial Risk Management.* The IAA distributed the document to financial and security regulators and to other leaders of the G20 countries with responsibility for financial oversight and has received positive feedback on the contribution to the discussions for the future of financial regulation and risk management. The paper presents the perspectives of the global actuarial profession on capital and risk management with four major proposals:

1. **Counter-cyclical regulatory arrangements** that would dynamically change capital requirements to, for example, increase capital requirements to deflate emerging market bubbles and allow drawdowns of such capital during subsequent periods of market stress.

2. **Creation of Country Chief Risk Supervisors** to monitor and report on macro risk indicators for the benefit of regulators and the public.

3. **Application of comprehensive enterprise risk management** by regulated entities that would include making allowance for extreme events, reporting on financial conditions, and independent reviews.

4. **Improved risk governance**, applying the principles outlined in the IAA paper on Enterprise Risk Management to all financial institutions.

The document can be found on the IAA Web site at *actuaries.org.*

ACTUARIAL INFLUENCE ON THE DEVELOPMENT OF INTERNATIONAL FINANCIAL REPORTING STANDARDS

The IAA Insurance Accounting Committee has submitted no fewer than seven comment letters on discussion papers and exposure drafts published by the IFRS. The topics range from IASB constitutional matters to disclosure about financial instruments. None were insurance specific, but the perspectives of the actuaries often add insights that can inform discussion about topics that have no direct connection to insurance.

In June, the Insurance Accounting Committee will submit a comment letter on the IASB's discussion paper on Revenue Recognition and in the coming months will be submitting letters on the exposure draft on fair value measurement and on a discussion document on credit risk in liability measurement. When it is published, the Insurance Accounting Committee will comment on the IASB's proposed standard to replace IAS 39 *Financial Instruments: Recognition and measurement* with a simpler standard on the classification and measurement of financial instruments. The proposed standard on fair value measurement is similar to FAS 157 *Fair Value Measurement* and is likely to elicit the greatest amount of comment on the use of inputs that are not observable. The use of credit standing in the measurement of liabilities is a concept that has always drawn fire from actuaries. The discussion document on credit standing is not limited to insurance liabilities, but is intended to address once and for all a topic that has been contentious in a number of contexts. The replacement to IAS 39 is expected to reduce the number of possibilities for the measurement of financial instruments to fair value or amortized cost. The actuarial profession will be interested in how the guidance for embedded derivatives changes, if at all, and the implications of eliminating the category of available-for-sale financial assets.

The IAA's comment letter on revenue recognition discusses how the transaction price model in the discussion paper might be applied to insurance contracts. It

concludes that the model is not sufficiently robust for the full range of insurance contracts and that, without re-measurement and discounting (which are not part of the proposed approach) the information provided for insurance contracts would not be decision-useful. The proposed model would recognize revenue, based on movement in assets and liabilities. When an entity receives consideration to provide a good or service, it creates a performance obligation that is recognized as a liability until the obligation is satisfied. The discussion paper proposes that the obligation be measured by a (non-discounted) expected cost with a margin to calibrate the initial measurement to the consideration. As the obligation is satisfied, revenue is recognized in the amount of the reduction in the liability. More than one commenter has observed that the approach makes the standard as much about measurement of liabilities as it is about revenue recognition. The comment letter from the IAA asks the IASB Board to reconcile the concepts in this paper to the measurement of insurance liabilities. At this stage there are a number of inconsistencies that will make the transaction price model unfeasible for insurance contracts.

One important topic that must be reconciled between the insurance and revenue recognition projects is the role of margins. In the revenue recognition project, the margin is the difference between the expected cost for the goods or services provided and the consideration. It forms part of the performance obligation and is released into income as a part of revenue as the goods or services are provided. The role of margin relates to the timing of the recognition of revenue and hence of profit. In the insurance project, the margin relates to the price for risk and perhaps for service. In its June meeting, the IASB Board discussed the possibility that the margin should be the amount that the insurer would require if it had to take on the obligations in the contracts from another entity. So it is clear that the margin relates to the price for the uncertainty in the cash flows, rather than to revenue recognition or profit emergence per se. Before the Board can complete the insurance project, it must decide on revenue recognition for insurance contracts and the role of margins will have to be clarified.

For actuaries involved in financial reporting for insurance companies, the most highly anticipated document is the exposure draft on accounting for insurance contracts, which is scheduled for release in the fourth quarter of 2009. The Insurance Accounting Committee has been a close follower of the discussions and has analyzed

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and provided input to the Board on the issues related to the topic of measurement of insurance liabilities. The Board's current thinking is that insurers should reflect options in contracts by a look through to the entire cash flows. This approach is no different from the approach presented to the Board by the IAA several years ago.

The influence of the IAA on the Board's decisions is not directly acknowledged, but is nonetheless apparent. The IAA has representation on the IASB's advisory working groups to the insurance project and to the financial instrument project. The IASB Board sees the actuarial profession as a trusted, credible source of information and insight. While the final standard will undoubtedly not be the one the actuarial profession would have written, it will nonetheless be better because of the IAA's efforts.

RISK MARGIN WORKING GROUP

The ad hoc working group on risk margins has published its document *Measurement of Liabilities for Insurance Contracts: Current Estimates and Risk Margins* and the working group has been disbanded. Originally intended to provide a basis for a regulatory standard on the measurement of liabilities, the document that emerged revealed that while there are common practices for the determination of risk margins, there is no standardization. The final paper goes beyond margins and discusses all of the elements (the three building blocks as they have come to be known in IFRS parlance) of the measurement of liabilities; namely, current estimates for future cash flows, the time value of money, and risk margins. The paper can be purchased from the IAA in hard copy form or it can be downloaded at no cost from the IAA Web site.

ACTUARIAL BASIS FOR SOLVENCY REPORTING AND CAPITAL ASSESSMENT

A topic of interest to actuaries at the IAA meeting was the adoption of the Solvency II standard for solvency reporting and capital assessment by the European Union, which has an implementation date of 2012. This is a dynamic approach that creates a common framework for capital assessment on each insurer to make and disclose its own capital assessment. Application guidance from the European insurance supervisors is expected in June. The adoption of Solvency II has not precipitated activity of the IAA, because it is a regional matter, but it may represent the direction of standards and practices for capital assessment in the United States and other parts of the world as well.

An important aspect of Solvency II is reliance on internal models. The development, management and governance of appropriate internal models are topics that do have global interest. The Solvency Subcommittee of the Regulatory Committee of the IAA is nearing completion of a paper on internal models that address the internal controls issues. With the adoption of IFRS, financial reporting will also rely on internal models much in the same way as capital assessment. The paper from the IAA is likely to be an important resource for actuaries seeking guidance on how to make their models compliant with Sarbanes-Oxley requirements.

STOCHASTIC MODELING

The monograph on stochastic modeling, which has been sponsored in part by the Financial Reporting Section, is going through finals edits. Reviewers gave the monograph high marks, especially for the fact that the monograph reaches a wide range of actuaries, including those who want just an executive, but nonetheless rigorous, understanding of how stochastic modeling is used in practice by actuaries, as well as those who want a detailed understanding. The monograph has accompanying spreadsheets that allow actuaries to get hands-on with the applications. The monograph will be available to download at no cost from the IAA Web site or available for purchase in hard copy from the IAA in the coming months.

NEXT MEETING

The IAA meets again in November in Hyderabad, India. By that time, the IASB will have made many decisions on accounting for insurance contracts and the Insurance Accounting Committee will be focused on assessing the proposed accounting. The next report promises to be very interesting. ■

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BE SURE TO SIGN UP FOR THESE INFORMATIVE SESSIONS:

Session 78 - Panel Discussion

LIVING WITH ACTUARIAL "BLACK SWANS" –
A DISCUSSION WITH NASSIM NICHOLAS TALEB

Following his luncheon address, Nassim Nicholas Taleb, author of The Black Swan, will answer questions posed by a select actuarial panel and by session participants. This session's purpose is to delve more deeply into the impact of "black swans" on the work of actuaries.

Session 15 - Panel Discussion

GAAP UPDATE AND IMPLICATIONS OF FINANCIAL MELTDOWN

This session will discuss new developments in GAAP financial reporting and implications they may have on actuaries. In addition, there will be specific focus on the implications of the financial meltdown, looking at how companies and their auditors dealt with issues caused by the meltdown.

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AG43 CASE STUDY RESULTS (ALTERNATIVE SCENARIO SETS)

by John Froehle

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This article presents and discusses valuation and Risk Based Capital (RBC) results for a sample variable annuity block of business. The valuations were performed under the current valuation rules and guidelines in effect until Dec. 31, 2009 and also under Actuarial Guideline 43 (AG 43) which is effective Dec. 31, 2009. The RBC was determined using the C-3 Phase II methodology. The article also presents analyses of the impact to AG 43 results from extending projection periods and from utilizing alternative economic scenario sets.

Like C-3 PII, AG 43 applies to individual variable deferred and payout annuities and to group annuities, and other products with guarantees similar to GMDBs and VAGLBs. Like C-3 PII, AG 43 has a stochastic modeling element and a Standard Scenario element.

CASE STUDY VARIABLE ANNUITY PRODUCT

This fictitious product was introduced in 2008 and had exactly $25 million of account value in-force by year-end. It offers a standard fixed account and separate account investment options and it offers two GMDB designs. This product has no living benefit riders.

Table 1 and **Table 2** summarize the product specifications and in-force values at Dec. 31, 2008; the case study valuation date. Note that revenue sharing is not a product specification per se, but an agreement to share fees between the separate account fund managers and the insurance company. It does not affect account value growth.

Table 1: Product Specifications

Surrender Charges (by policy year)	7,6,5,4,3,2,1,0%, as % of Account Value
Free Withdrawals	10% of Account Value Per Year
Fixed Account Guarantee Credited Rate	1.50%
M & E Fee	1.25%
Fund Management Fee	0.75%
GMDB Types	4% Premium Rollup or Annual Ratchet
GMDB Charge	0.15%
Revenue Sharing as % of SA fund value	0.50%

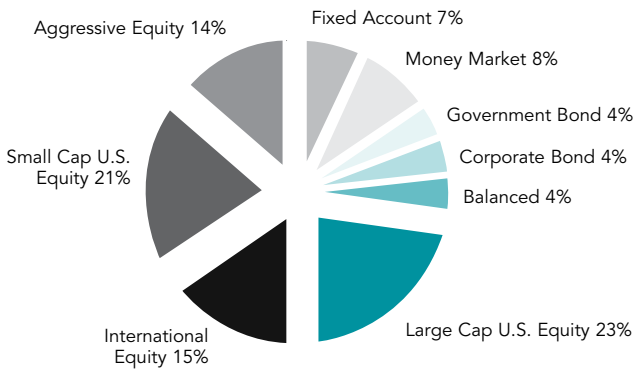
Table 2: In-Force Statistics (12/31/2008)

# Contracts	312
Percent Male (by Account Value)	41%
Average Attained Age	58
Cash Surrender Value	23,425,000
Account Value	25,000,000
Fixed Account Value Proportion	6.9%
Variable Account Value Proportion	93.1%
GMDB Amount (4% Premium Rollup)	20,483,383
GMDB Amount (Annual Ratchet)	15,926,206
ITM Ratio [1] (4% Premium Rollup)	147.6%
ITM Ratio [1] (Annual Ratchet)	143.1%

[1] ITM Ratio = GMDB Amount/Acount Value

This chart shows the mix of account value between the fixed account and separate account funds. Note, 73 percent of the account value is in the four equity funds

Case Study VA Mix of Account Value



(AGGR, INTL, SMALL, U.S.) that come into play in the alternative scenario sets section of this article.

Case Study Results: Current Rules, AG 43, C-3 Phase II

Table 3 shows the case study statutory reserve results under current rules.

Table 3: Case Study Current Rules Statutory Reserves (12/31/2008)	
AG33 Reserve	23,773,517
AG34 GMDB Reserve	252,894
AG39 Living Benefits Reserve	0
Total Statutory Reserve	24,026,411

Table 4 shows the standard scenario results under a 50-year projection for AG 43 and C-3 Phase II. For both methods, we calculate a Basic Adjusted Reserve (BAR), add the greater of zero and the greatest present value of the negative of Accumulated Net Revenues (ANR) and then floor the result at the Cash Surrender Value.

For C-3 Phase II, the BAR is the Cash Surrender Value. For AG 43, it is an AG33-like calculation, but where the free withdrawal feature is ignored in the determination of surrender charges and the Cash Surrender Value floor is also ignored.

Obvious assumption differences exist between AG 43 and C-3 Phase II standard scenario projections including those for taxes, fund returns, fund margins, mortality rates, lapse rates and living benefit election rates and the discount rates used to determine present values differ between the two methods as well.

Interestingly, while the C-3 Phase II net revenues can be aggregated across contracts in the ANR determination, this aggregation is not allowed for AG 43 where the calculation is performed separately for each contract. If aggregation was allowed for AG 43, the Standard Scenario result shown below would decrease from 23,910,756 to 23,734,760.

Table 4: Case Study Results for Standard Scenario (50-year projection)		
Method	**AG43**	**C-3 Phase II**
Basic Adjusted Reserve (BAR)	23,734,760	23,425,000
Maximum Negative PV ANR, Floored at 0	175,829	1,067,035
Seriatim CSV Floor Effect	167	–
Standard Scenario Result	23,910,756	24,492,035

The stochastic model was run for a 50-year projection on a seriatim basis for the first 1,000 scenarios from the American Academy of Actuaries 10,000 scenarios. A description of how the Academy scenarios were extended from 30 years to 50 years is in a later section of this article.

The stochastic projections utilized the prudent estimate assumptions in **Table 5**. The projections assumed explicit buying and selling of general account assets and the general account management assumptions are shown in **Table 6**. Note it is possible for General Account assets to run out in a bad scenario. The model assumes borrowing to cover cash outflows in this situation.

Table 5: Prudent Estimate Assumptions	
Mortality	A2000 with no mortality improvement
Add on Considerations	None
Partial Surrenders	None
Full Surrenders (by policy year)	3,3,3,3,3,5,5,25,15,10,5…
Maintenance Expense	$60 per policy annual, 3% inflation
Borrowing Rate when GA Assets <= 0	5YT + 50 basis points
Economic Scenarios	First 1,000 from the Academy

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Table 6: General Account (GA) Management Assumptions	
GA Assets Book Value (Non-Callable Bonds)	492,841
GA Assets Coupon Rate	4.49%
Term to Maturity	10 Years
Credited Rate Strategy	Portfolio Return - 225 basis points
Reinvestment Strategy	5 Year Bonds earning 5YT + 50 bps
Disinvestment Strategy	Proportional Sales of Existing Bonds

… while C-3 Phase II net revenues can be aggregated across contracts … this aggregation is not allowed for AG43.

Table 7 shows stochastic modeling results for the case study. For AG 43, the reserve for each scenario is calculated by adding the greatest present value of projection year-end accumulated deficiencies to the model starting assets amount. The scenario reserves are ranked and the average of the worst 30 percent of them, the CTE(70) amount, is the AG 43 reserve. Note the AG 43 projection ignores cash flows for income taxes.

The accumulated deficiency is the working reserve minus the reported asset amount and the discount rate used for the present value determination is the rate at which positive cash flows are invested net of expected credit losses. In our case, this rate is the pre-tax five-year treasury rate + 50 basis points.

Table 7: Case Study Results for Stochastic Modeling (50-year projection)		
Method	**AG43**	**C-3 Phase II**
Stochastic Model Starting Assets	23,773,517	23,773,517
Stochastic CTE Result [2]	23,742,147	24,055,816

(2) CTE (70) for AG 43 and CTE (90) for C-3 Phase II

The C-3 Phase II stochastic approach is quite similar where the greatest present value amount is added to model starting assets. Scenario results are ranked and the average of the worst 10 percent of them, the CTE(90) amount, is taken as the scenario Total Asset Requirement. For C-3 Phase II, the projections assume cash flows for income tax at a rate of 35 percent and discount rates equal to the scenario-specific after-tax one-year treasury rate.

Table 8 combines the standard scenario and stochastic results and shows the resulting reserve and RBC amounts. The AG 43 reserve is a little less than the reserve under the current rules (**Table 3**; 24,026,411)

Table 8: Case Study Reported Results		
Method	**AG43**	**C-3 Phase II**
Standard Scenario Result	23,910,756	24,492,035
Stochastic CTE Result	23,742,147	24,055,816
Reported Result Risk Based Capital Result	23,910,756 NA	24,492,035 581,279

Note our case study does not include reinsurance or hedge assets and there exist complex rules for handling these items for a block that has them. Also, note that if the AG 43 stochastic result exceeded the standard scenario result, the excess would need to be allocated to individual contracts. This is not the case for our case study results.

Analysis of Projection Periods

We tested the impact of the projection period on Standard Scenario and Stochastic modeling results for periods of 20, 30, 40 and 50 years. We used our own Stochastic Log Volatility scenario generator to produce equity returns beyond the 30 years provided in the Academy scenarios. This generator incorporates Mersenne Twister pseudo-random number generation and utilizes Choleski Decomposition to produce desired return correlations. We used parameters in the generator that maintained equity return statistics for the period beyond 30 years similar to those during the first 30 years from the Academy scenarios.

Table 9: Scenario Statistics

Fund Name	Mean Monthly Returns		STD DEVN Monthly Returns	
	Projection Years 1-30	Projection Years 31-50	Projection Years 1-30	Projection Years 31-50
AGGR	0.90%	0.93%	7.14%	7.13%
INTL	0.75%	0.76%	4.92%	4.93%
SMALL	0.81%	0.81%	5.83%	5.86%
US	0.71%	0.71%	4.34%	4.34%

Table 10: Scenario Return Correlations

Fund Name	Monthly Returns Correlations (Years 1-30 / Years 31-50)			
	AGGR	INTL	SMALL	US
AGGR				
INTL	48.8% / 49.0%			
SMALL	57.3% / 57.0%	45.4% / 45.1%		
US	58.3% / 58.1%	56.4% / 56.1%	77.0% / 77.2%	

Table 9 and **Table 10** show equity fund statistics from the first 30 years in the Academy scenarios and from years 31 through 50 produced by our model. They are nearly identical.

Table 11 and **Table 12** show AG 43 case study results for this analysis. The biggest jump occurs moving from 20 years to 30 years and the effect of further extensions of the projection period appears minimal. Note also the standard scenario result is bigger than the stochastic result for all four projection periods. We do feel that if the assumed surrender rates were smaller or if the block contained living benefits affecting surrenders and elections, the effects of projection period extension would be bigger.

Analysis of Alternative Scenario Sets

We also tested the impact to AG 43 stochastic results from using the following two alternative scenario sets both of which substantially satisfy the equity calibration requirements.

Table 11: Standard Scenario Results

Projection Period	20 years	30 years	40 years	50 years
Standard Scenario Reserve (SSR)	23,881,608	23,910,728	23,910,756	23,910,756
Increase over 20-Year SSR		29,120	29,148	29,148
% Increase over 20-Year SSR		0.122%	0.122%	0.122%

CONTINUED ON **PAGE 24**

Table 12: Stochastic Model Results				
Projection Period	**20 years**	**30 years**	**40 years**	**50 years**
CTE(70)	23,694,246	23,741,023	23,741,832	23,742,147
Increase over 20-Year CTE(70)		46,777	47,586	47,900
% Increase over 20-Year CTE(70)		0.197%	0.201%	0.202%

Alternative Set 1: Equity fund returns using Regime Switching Log-Normal model with 2 regimes and parameterized to maintain mean, standard deviation and correlation statistics substantially similar to those from the Academy first 1,000 scenarios. This set of scenarios contains interest rates and bond fund returns from the Academy first 1,000 scenarios.

Alternative Set 2: Same as Alternative Set 1 (RSLN2) but with half the correlation between returns for the four equity funds. This is just a test and it is not suggested this correlation is correct in any way or that it fits any particular swatch of historical index returns.

The projection period for this test is 30 years and results are shown in **Table 13**. The first alternative set produced a CTE (70) result close to that from the base run. It is interesting to note the differences in results between those two runs in the tail percentiles. The second alternative set produced a reduction to the stochastic reserve; an expected result due to the greater independence in returns this scenario set embodies.

The tables in the next section show the AG 43 equity calibration criteria and an indication of how well the U.S. fund returns from the three scenario sets satisfy these criteria.

Gross Wealth Ratios derived from the stochastic return scenarios for use with a separate account variable fund category for diversified U.S. equities must satisfy calibration criteria.

Appendix 5 of AG 43 states that, "Gross Wealth Ratios derived from the stochastic return scenarios for use

Table 13: Model Results for Alternative Scenario Sets			
Result	**Academy First 1,000**	**RSLN2: Academy Correlation**	**RSLN2: Half Academy Correlation**
CTE(70) Result	23,741,023	23,714,273	23,597,154
Excess over CSV	316,023	289,273	172,154
70th Percentile Result	23,426,668	23,510,392	23,462,483
80th Percentile Result	23,514,040	23,571,594	23,515,445
90th Percentile Result	23,668,686	23,668,933	23,592,612
95th Percentile Result	23,934,307	23,825,766	23,689,487
99th Percentile Result	25,010,996	24,476,300	23,898,307
100th Percentile Result	25,276,643	25,845,033	24,944,612

with a Separate Account variable fund category for diversified U.S. equities must satisfy calibration criteria. …" Appendix 5 also states, "The scenarios need not strictly satisfy all calibration points, but the actuary should be satisfied that any differences do not materially reduce the resulting reserves."

Using the value 0.81 in the calibration table to illustrate its use, at least 50 of the 1,000 scenarios used for our case study must have an accumulated value of $1.00 at the end of five years of less than or equal to 81 cents, based on gross returns (no deductions for fees). By the same token, at least 100 of the 1,000 scenarios must have an accumulated value of $3.63 or more.

Calibration Results

Equity Calibration Criteria				
Percentile	**1Yr**	**5Yr**	**10Yr**	**20Yr**
2.5%	0.78	0.72	0.79	
5.0%	0.84	0.81	0.94	1.51
10.0%	0.9	0.94	1.16	2.1
90.0%	1.28	2.17	3.63	9.02
95.0%	1.35	2.45	4.36	11.7
97.5%	1.42	2.72	5.12	

Gross Wealth Factors from the three scenario sets												
	Academy First 1000				**RSLN2 (Academy Correlation)**				**RSLN2 (Half Academy Correlation)**			
Percentile	**1Yr**	**5Yr**	**10Yr**	**20Yr**	**1Yr**	**5Yr**	**10Yr**	**20Yr**	**1Yr**	**5Yr**	**10Yr**	**20Yr**
2.5%	0.75	0.68	0.75		0.67	0.66	0.71		0.70	0.68	0.76	
5.0%	0.80	0.79	0.89	1.43	0.72	0.74	0.83	1.27	0.74	0.74	0.87	1.44
10.0%	0.87	0.91	1.10	1.85	0.79	0.85	1.04	1.67	0.80	0.85	1.08	1.87
90.0%	1.30	2.28	3.90	10.40	1.27	2.20	3.92	11.29	1.26	2.22	4.19	11.78
95.0%	1.37	2.49	4.37	13.39	1.35	2.47	4.38	14.84	1.33	2.52	4.91	14.37
97.5%	1.43	2.65	5.02		1.42	2.73	5.27		1.39	2.73	5.76	

Difference in Gross Wealth Factors: Scenario results minus the Calibration Criteria												
	Academy First 1000				**RSLN2 (Academy Correlation)**				**RSLN2 (Half Academy Correlation)**			
Percentile	**1Yr**	**5Yr**	**10Yr**	**20Yr**	**1Yr**	**5Yr**	**10Yr**	**20Yr**	**1Yr**	**5Yr**	**10Yr**	**20Yr**
2.5%	(0.03)	(0.04)	(0.04)		(0.11)	(0.06)	(0.08)		(0.08)	(0.04)	(0.03)	
5.0%	(0.04)	(0.02)	(0.05)	(0.08)	(0.12)	(0.07)	(0.11)	(0.24)	(0.10)	(0.07)	(0.07)	(0.07)
10.0%	(0.03)	(0.03)	(0.06)	(0.25)	(0.11)	(0.09)	(0.12)	(0.43)	(0.10)	(0.09)	(0.08)	(0.23)
90.0%	0.02	0.11	0.27	1.38	(0.01)	0.03	0.29	2.27	(0.02)	0.05	0.56	2.76
95.0%	0.02	0.04	0.01	1.69	0.00	0.02	0.02	3.14	(0.02)	0.07	0.55	2.67
97.5%	0.01	(0.07)	(0.10)		0.00	0.01	0.15		(0.03)	0.01	0.64	

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Calibration Success Indicator												
	Academy First 1000				RSLN2 (Academy Correlation)				RSLN2 (Half Academy Correlation)			
Percentile	1Yr	5Yr	10Yr	20Yr	1Yr	5Yr	10Yr	20Yr	1Yr	5Yr	10Yr	20Yr
2.5%	PASS	PASS	PASS		PASS	PASS	PASS		PASS	PASS	PASS	
5.0%	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
10.0%	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
90.0%	PASS	PASS	PASS	PASS	FAIL	PASS	PASS	PASS	FAIL	PASS	PASS	PASS
95.0%	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	FAIL	PASS	PASS	PASS
97.5%	PASS	FAIL	FAIL		PASS	PASS	PASS		FAIL	PASS	PASS	

Scenario Statistics

This section shows basic return statistics for the three scenario sets. The statistics for the first alternative set are close to those from the Academy First 1,000 scenarios with the exception of correlations between the equity funds and the four fixed income funds (ITGVT, FIXED, LTCORP, and MONEY). As intended, the equity fund correlations (AGGR, INTL, SMALL, U.S.) in the second alternative set are about half those from the other two sets.

Class	MEAN	STD DEVN
UST_1Y	3.61%	2.31%
UST_20Y	4.47%	1.77%
UST_5Y	3.98%	1.99%
AGGR	0.91%	7.15%
BALANCED	0.55%	2.79%
FIXED	0.30%	1.39%
INTL	0.76%	4.92%
ITGVT	0.28%	1.24%
LTCORP	0.35%	1.94%
MONEY	0.26%	0.21%
SMALL	0.82%	5.82%
US	0.72%	4.33%

Scenario Statistics: Academy (First 1,000 Scenarios) (monthly returns for first 20 years)								
Correlations								
AGGR	BALAN	FIXED	INTL	ITGVT	LTCORP	MONEY	SMALL	U.S.
100.0%								
53.5%	100.0%							
-4.1%	42.3%	100.0%						
48.7%	55.5%	14.9%	100.0%					
-6.9%	32.8%	94.9%	9.9%	100.0%				
-0.2%	48.0%	92.9%	18.9%	76.5%	100.0%			
1.1%	-2.2%	5.4%	-3.1%	8.1%	1.6%	100.0%		
57.2%	74.5%	13.0%	45.2%	4.9%	20.9%	-3.2%	100.0%	
58.2%	98.1%	23.9%	56.3%	14.8%	31.5%	-3.5%	77.0%	100.0%

Conclusion

In closing, the case study illustrates the calculation requirements for AG 43 and C-3 Phase II. We have shown the Academy scenarios can be successfully extended beyond 30 years and the results for this particular product from extending the period beyond 30 years is not great. We also showed alternative economic scenario sets can be constructed that substantially meet the calibration criteria and we showed the impact to AG 43 stochastic results from using these alternative scenario sets. ■

Class	MEAN	STD DEVN
UST_1Y	3.61%	2.31%
UST_20Y	4.47%	1.77%
UST_5Y	3.98%	1.99%
AGGR	0.90%	6.61%
BALANCED	0.55%	2.55%
FIXED	0.30%	1.39%
INTL	0.74%	4.76%
ITGVT	0.28%	1.24%
LTCORP	0.35%	1.94%
MONEY	0.26%	0.21%
SMALL	0.81%	5.34%
US	0.71%	4.14%

Scenario Statistics: RSLN2 (Academy Correlation)
(monthly returns for first 20 years)

	Correlations								
	AGGR	BALAN	FIXED	INTL	ITGVT	LTCORP	MONEY	SMALL	U.S.
AGGR	100.0%								
BALANCED	57.0%	100.0%							
FIXED	0.3%	22.1%	100.0%						
INTL	47.9%	53.9%	0.2%	100.0%					
ITGVT	0.2%	20.9%	94.9%	0.2%	100.0%				
LTCORP	0.4%	20.7%	92.9%	0.3%	76.5%	100.0%			
MONEY	0.4%	1.9%	5.4%	0.6%	8.1%	1.6%	100.0%		
SMALL	56.0%	74.5%	-0.1%	43.8%	-0.1%	0.0%	0.7%	100.0%	
US	58.3%	97.6%	0.2%	55.2%	0.1%	0.4%	0.7%	74.0%	100.0%

Class	MEAN	STD DEVN
UST_1Y	3.61%	2.31%
UST_20Y	4.47%	1.77%
UST_5Y	3.98%	1.99%
AGGR	0.92%	6.61%
BALANCED	0.55%	2.54%
FIXED	0.30%	1.39%
INTL	0.76%	4.77%
ITGVT	0.28%	1.24%
LTCORP	0.35%	1.94%
MONEY	0.26%	0.21%
SMALL	0.84%	5.32%
US	0.72%	4.14%

Scenario Statistics: RSLN2 (Half Academy Correlation)
(monthly returns for first 20 years)

	Correlations								
	AGGR	BALAN	FIXED	INTL	ITGVT	LTCORP	MONEY	SMALL	U.S.
AGGR	100.0%								
BALANCED	28.8%	100.0%							
FIXED	-0.2%	22.1%	100.0%						
INTL	24.2%	27.5%	0.3%	100.0%					
ITGVT	-0.2%	21.0%	94.9%	0.1%	100.0%				
LTCORP	-0.2%	20.5%	92.9%	0.4%	76.5%	100.0%			
MONEY	0.4%	1.8%	5.4%	0.0%	8.1%	1.6%	100.0%		
SMALL	28.5%	37.7%	0.4%	21.9%	0.5%	0.2%	0.1%	100.0%	
US	29.6%	97.6%	0.1%	28.2%	0.1%	0.1%	0.6%	38.5%	100.0%

Keeping Up with the World

by Henry W. Siegel

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"As long as the world is spinning, we're going to get dizzy and make mistakes."—Paraphrased from Mel Brooks.

This quarter it seemed as if the world was spinning much more rapidly than ever and it became an ever greater challenge to keep up and not get dizzy.

For instance, this quarter President Obama announced the outline of his plan to redo regulation of the financial services industry. Long in pages and short on details, it nevertheless seemed to herald material changes affecting not only banks but insurers as well.

On the insurance front, the European Union finally adopted Solvency II, its long awaited improvement to their outdated solvency regulation. Solvency II was similarly long in pages and short on details, but is expected to have an important impact on the industry worldwide.

At the same time, the accounting standards setters indicated they were serious about having a new financial instruments standard and insurance contracts standard in time for adoption by June 2011. Between them, these two standards will effectively rewrite the balance sheet for every insurance company that reports on IFRS, a growing percentage of the world's nations.

By themselves, any one of these three events would have had widespread effects on the insurance industry. Together, they could be rewriting every regulatory, solvency and accounting principle we have ever learned. We all need to run even faster to avoid getting dizzy and making mistakes. And it looks like it will get even faster next quarter.

Here's my summary by month.

APRIL

Hopefully, everyone reading this also listened to the webcast the SOA's Financial Reporting Section sponsored on April 29. Speaking were Hans Van der Veen and Mark Trench of the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) staff respectively. Also in April comments were due on the IASB/FASB joint Discussion Paper on Financial Statement Presentation. Steve Strommen, vice-chair of the American Academy of Actuaries (AAA) Financial Reporting Committee spoke about the paper and the Academy's reaction to it on the webcast. This paper is another revolutionary attempt by the IASB and FASB to redo the format of the entire financial statement. It's so revolutionary, in fact, that assets will no longer only be on the left side of the balance sheet—there might not be any sides to the balance sheet at all!

The IASB's discussion in April concerned whether a separate risk margin is needed in insurance liabilities and whether those margins, if needed, were part of the insurance liability or separate. The Board reached no agreement on these subjects.

Both Boards also discussed the treatment of acquisition costs. They agreed that acquisition costs should be expensed as spent. The IASB tentatively agreed that revenue could be recognized to offset those acquisition costs that were incremental (definition to be worked out), while the FASB did not agree to recognize revenue for that. In informal discussions some members of the FASB indicated they might allow the measurement of the liability to be negative (i.e., become an asset) at issue to offset the acquisition costs since all future premiums would be recognized in the measurement, including the portion intended to recover those acquisition expenses. There was no public discussion of such a position, however. How these positions will be reconciled remains to be seen.

MAY

On May 5, the Council of European Finance Ministers adopted Solvency II effective for 2012. This is a major improvement to European solvency regulation and followed nearly a year of very intense negotiations among European regulators.

Now come the details. CEIOPS, the European regulatory body responsible for putting the details of Solvency II into place, promptly issued a series of draft papers containing proposed guidance. These papers can be

found at: *http://www.ceiops.eu/media/files/consultations/consultationpapers/*

Of particular interest is Paper 33, which discusses corporate governance. The paper discusses the role of the actuary and the role of risk management. Interestingly, it calls for a Chief Risk Officer for most large companies, but does not call for a Chief Actuary. These papers make interesting reading.

The major topic at the May IASB meeting was the financial instruments project. In an attempt to eliminate complexity, the Board tentatively decided to eliminate the Available for Sale category and allow only two measurement categories—fair value and amortised cost. Only basic financial instruments (bonds, primarily) would be measured at amortised cost. The remainder would be measured at fair value with changes going through the income statement.

Under this working premise, tainting rules for amortised cost portfolios would be eliminated and reclassification between fair value and amortised cost would be prohibited. A fair value option would remain so that a company could use fair value for all its financial instruments if it chooses.

This proposal could have an important impact on the Insurance Contracts project since until now most people had assumed that the current measurement of financial instruments would remain in place. In particular, if assets are primarily measured at amortised cost, then allowing the discount rate for insurance liabilities to change with every quarter's interest rate movements could cause significant volatility in earnings. This concern has not been discussed as yet by either Board but was included in comment letters to the IASB from the CFO Forum, Group of North American Insurance Enterprises and the Life Insurance Association of Japan.

> ... the European Union finally adopted Solvency II ...

Possibly the most important decision the IASB made, however, was that this change would be contained in an Exposure Draft in July with a final standard in time for 2009 year-end financial statements. Adoption will not be mandated for 2009, but this is still a much shorter time frame than many users anticipated.

FASB, however, didn't agree with the IASB. In their discussion on the subject, the FASB also adopted a two category approach, one of which was fair value. The other, however, was another type of current value, the details of which are somewhat unclear.

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Call for Papers–Living to 100 Symposium IV

The Society of Actuaries will present its fourth triennial international Living to 100 Symposium in January 5-7, 2011 in Orlando, FL. We encourage anyone interested in preparing a paper for the symposium to get an early start on pursuing the research and analyses. We are seeking high quality papers that will advance knowledge in the important area of longevity and its consequences. To learn more, visit *www.soa.org,* click on Research, Research Projects and Calls for Papers and Data Requests.

The IASB discussion on Insurance Contracts in May was relatively brief. The Board concluded that measurement should include all expected cash flows resulting from a contract. While this would cover recurring premiums on Life contracts, they didn't specifically cover discretionary payments like policyholder dividends and excess interest credits or optional premiums for Universal Life contracts. The tone of the discussion, however, suggested that those would be included as well. It has taken more than 10 years for the IASB to agree that recurring premiums on long-term insurance contracts need to be recognized in the liability measurement.

It has taken more than 10 years for the IASB to agree that recurring premiums on long-term insurance contracts need to be recognized in the liability measurement.

Having made that decision, the Board needed to define when a contract begins and ends. In particular, the P&C business didn't want premiums from renewal of their contracts to be included in the measurement of their liability. The Board concluded that when an insurer has the ability to cancel a contract or change its pricing, then a new contract is started. This would mean that most short duration contracts would only measure the contract that is in place and not have to consider renewals of that contract. On the other hand, recurring premiums for life insurance contracts would be recognized since in most situations the contracts cannot be unilaterally cancelled or repriced. The staff will develop more specific proposals on this issue.

At the end of May, the International Actuarial Association (IAA) met in Tallinn, Estonia. The major discussion item on the agenda of the Insurance Accounting Committee was the draft response on the Revenue Recognition Discussion Paper from the IASB. The major question was whether revenue should be recognized over the coverage period only (i.e., the period during which a claim must be incurred in order for it to be covered) or over the payment period. This is particularly important for non-life coverages where claim payments can extend over periods much longer than the coverage period.

In a separate article in this issue, Jim Milholland provides more details on this meeting.

JUNE

If the industry thought that May brought change, June presaged even more. The Financial Regulatory Reform paper submitted by the Department of the Treasury touched on almost every aspect of the Financial Service Industry. Discussing it is well beyond the scope of this article, but the parts that deal with accounting are potentially far-reaching.

On the third to last page of the paper is a section entitled "Improve Accounting Standards." The three recommendations are:

- Clarify and make consistent the application of fair value accounting standards, including the impairment of financial instruments, by the end of 2009;
- Improve accounting standards for loan loss provisioning by the end of 2009 that would make it more forward looking;
- Make substantial progress by the end of 2009 toward development of a single set of high quality global accounting standards.

These recommendations were addressed to both FASB and the IASB. They call for a single set of global standards and they call for it soon. While these are mainly hortatory and don't seem to anticipate legislation, does it leave any doubt what accounting system would be adopted should a U.S. federal regulator for insurance be installed?

In June, both the IASB and FASB continued their discussion of financial instruments, mainly sticking to their previous positions with regard to measurement and classification. The most interesting event was

that the IASB started to discuss allowing use of Other Consolidated Income as a place to put unrealized gains and losses. Unfortunately, they would still prohibit putting realized gains and losses into income, making common stock a particularly unattractive investment for other than unit-linked or variable contracts. The insurance companies of Europe, Japan and the United States have all expressed their dismay at the elimination of AFS.

On insurance contracts, the IASB finally abandoned fair value as a potential measurement attribute, settling on fulfillment value (the former alternative 4) and a new alternative based on IAS 37, which until now had been used for liabilities such as litigation. The major difference between the two alternatives is that the fulfillment value has only a single margin while the IAS 37 value has at least two (a risk margin and a residual margin) and perhaps three (adding a service margin). There is another article in this issue of the Financial Reporter discussing these alternatives in more detail.

The Board also rejected the staff's proposal to delay issuing an Exposure Draft on Insurance Contracts until April 2010, strongly ordering staff to have an exposure draft by the end of this year. FASB did not sign on to the same timing, but will undoubtedly face pressure to do so.

Also in June, the IASB published a discussion paper entitled, *Credit Risk in Liability Measurement,* which discusses whether the risk that a liability will not be met should figure into the value of the liability. This is an issue that has been very contentious and will undoubtedly affect the insurance contract project.

Finally in June, the IASB's insurance working group met. The attendees discussed the many issues currently under discussion at both boards; the discussion was helpful in confirming positions and status of several items.

In particular, it was clear from the comments that support for the two measurement attributes still under consideration for life contracts (see above) was split rather evenly, probably reflecting the split on the Boards. In contrast, there was near unanimity that the treatment of acquisition expenses needed to avoid large losses at issue on products that are expected to be profitable.

Those members of the IASB and FASB in attendance, as well as their staffs, also confirmed that end of the year was still the goal for getting out an Exposure Draft for Insurance Contracts, but FASB seems somewhat less committed to that timing than the IASB.

The IASB staff also confirmed that it intends to carry out some limited field testing prior to issuing the Exposure Draft. The study beginning by the SOA was mentioned and the staff confirmed they were working closely with the project management.

NEXT QUARTER

The IASB will issue their measurement and classification paper on financial instruments. FASB might also.

The IASB is also expected to issue an exposure draft on Impairment of Financial Instruments in September.

Both Boards are expected to reach tentative decisions on the measurement attribute for insurance contracts. ■

Remember: Insurance Accounting is too important to be left to the accountants!

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