THE FINANCIAL REPORTER

NEWSLETTER OF THE LIFE INSURANCE COMPANY FINANCIAL REPORTING SECTION

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Editor's Notes

by Thomas Nace

This issue of the *Financial Reporter* represents a lot of firsts. It is the first issue in what people are referring to as the new millennium. It is the first issue of the newsletter started under the leadership of the Section's new chairperson, Mike McLaughlin, and it is my first issue as editor of the newsletter.

In terms of the latter, I would like to thank Tom Mitchell for the help he has provided me during the transition of the editorial responsibilities of this newsletter. The newsletter provides a valuable means of communicating to the members of the Section, the activities taking place that affect us all as financial actuaries. This includes activities of the Section itself, its members and the committees and projects that will mold the framework within which we will perform our job. As such, I hope to uphold the tradition of high quality that my preceding editors have established through their work on this newsletter.

Already the position of editor has afforded me the opportunity to interact with many new people, whom I probably would not have come in contact with otherwise. I believe that you too will appreciate what these authors have to offer in the articles that they have so graciously agreed to provide in this issue.

One of our articles, "Demutualization: Filling the 'GAAP' in Accounting" by Patricia Matson and Darryl Wagner, was provided on a volunteer basis without solicitation. I encourage others to follow suit, if you believe the information you have gained from your work or from a particular project would be of interest to your fellow Section members. The newsletter can only be informative to our readers if people are willing to take the time to contribute to it.

Also in this issue are several articles related to seminars that our members have been involved with. Ed Robbins highlights a seminar held in Mexico; Michelle Chong Tai-Bell reviews a Caribbean seminar; Tom Mitchell details the activities of the recent Toronto seminar dealing with segregated funds; John Bevacqua provides a preview of

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An Actuarial Analysis of FAS 133 (Part 1)

by Anson J. Glacy, Jr.

In June of 1998, after long years of contentious debate, the Financial Accounting Standards Board issued its new standard on derivatives, Statement No. 133, *Accounting for Derivative Instruments and Hedging Activities.* The goal of the new Statement is to resolve the many inconsistencies that have haunted derivatives accounting. It will dramatically change the way hedging relationships are reported and create earnings and capital volatility that is virtually unavoidable. The principles embodied in FAS 133 are complex and controversial, especially as they relate to insurers using derivatives to hedge capital market risks. Part 1 of this article summarizes the key provisions of FAS 133 from the perspective of an insurance company, while Part 2 (in the next issue) will explore its implications for actuaries. Please note that this analysis is not a substitute for a comprehensive assessment of how the Statement may affect your organization.

Background

The FASB believes that once remaining conceptual and measurement issues are resolved, all financial instruments are to be carried on the balance sheet at fair value. Like FAS 115 before it, FAS 133 thus is an interim step toward the FASB's ultimate goal. While certain traditional insurance contracts are excluded under FAS 133, many insurers, after experiencing the standard's thorny implementation and compliance challenges, may long for the ability to simply present all financial instruments at fair value.

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the upcoming spring meeting to be held in San Diego.

Our new chair, Mike McLaughlin, addresses the Section in his article, "Chair's Corner." Mike raises several thought-provoking issues that affect all Section members.

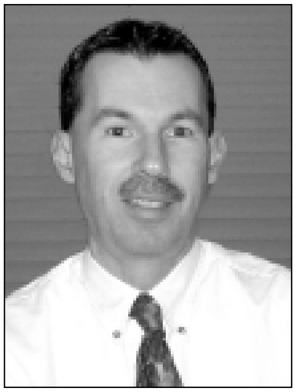
On the education front, Larry Gorski provides a timely update of the current activities in the new education and examination system, and Tom Herget gives an interesting overview of the players and the process involved in the project he has assumed — to develop a new GAAP text book.

Industry committee and task force updates are presented by Kevin Palmer (COLIFR), Ted Schlude (LHATF) and Bob Brown (Task Force on Life RBC).

Finally, our lead story is the first of two parts dealing with a topic that has been in the news quite a bit lately, SFAS 133. Jay Glacy provides an excellent summary of the major issues addressed by SFAS 133. Part two of this article will be published in the next issue of the *Financial Reporter.*

Once again, I look forward to the opportunities that this position will provide me, and I look to the members of the Section to help me make this as good a product as it can be.

***Tom Nace, FSA, MAAA, is vice president with PolySystems, Inc. in Pennsauken, NJ. He can be reached at* tnace@polysystems.com.**



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Chair's Corner

by Mike McLaughlin

The Challenges Facing a Section with a Proud and Successful Past

The Financial Reporting Section is large, active, and has a strong sense of identity. We comprise over 3,600 members. We held four very successful seminars last year, including one in Mexico. We helped sponsor the Fair Value Symposium, and we have organized and presented typically 14 or 15 sessions at each Society meeting. For last October's 50th Anniversary meeting of the Society, we organized a boat cruise around San Francisco Bay and published a monograph containing 20 articles and papers of lasting interest. An esteemed group led by Tom Herget is writing a textbook on U.S. GAAP, under the sponsorship of the Section. You can read more about this in this issue. Our Section has liaisons with the SOA practice areas and the American Academy of Actuaries, funds research opportunities on occasion, and last but not least, publishes the excellent newsletter you are now reading. Yet our dues are relatively low. There's plenty going on, and we are one of the most, if not the most active of the Sections of the Society. I'm proud to be a member of and chair of the Section.

Section Identity

As to our sense of identity, Section members are bound together by closely related common interests. We have members in different companies, to be sure, even different countries. Our members include both regulators and regulatees (my computer dictionary says that "regulatees" isn't a word — but it certainly should be). Despite these differences, our interests are more closely aligned than, for example, the Product Development Section, whose members include sub-groups of life, annuity, health and supplemental product actuaries. There's always a new model law, or FASB statement, or other common problem that we have to deal with. We share insights that we gain in our understanding of existing reserve methods, or the nuances of DAC amortization, or the impact we have on product design or pricing. And we seem to have quite an appetite for studying methods used internationally as we look for better ways to do what we do.

This strong sense of identity and camaraderie in the Section has interesting sidelights. As a member, I often think of my professional activities as Section-related, rather than Society-related. This includes the use of the newsletter, liaison activities, being a presenter at seminars, and so on. Sometimes we even forget that the Section is part of a larger entity. At one meeting some months ago, the Council was discussing a decision on some issue. One Council member wondered aloud, what would the Society think about this topic. Lois Chinnock, our Society liaison, spoke up. She admonished us, in the gentlest and politest way, "You are the Society." Food for thought, indeed. Aren't we them, and aren't they us?

Shifting Roles

I've thought about this issue more often recently, in perhaps three contexts. With the reorganized Education & Examination syllabus, country-specific topics have been eliminated. The Section is expected to provide more continuing education (some would say basic education) in the future than it has in the past. This additional responsibility of providing more seminars and other learning events in a completely volunteer environment may present a significant burden on Section members. The full impact is not yet clear, but it seems that the Society has shifted some responsibility to the Section.

At the same time as the Section is expected to hold more seminars, a new policy on related administrative costs has taken effect. Although the details are not completely clear, the Society expects to share to a much greater extent in the profits of seminars conducted by the Sections. In the past, a flat fee was charged. Our Section has been remarkably successful over the last few years in holding seminars; they have been very well attended. Despite reductions in seminar fees, we have tended to come out ahead, shall we say, relative to administrative and travel costs. Without doing the exact math, the effect of the new profit-sharing approach will be to sharply reduce the funds that our Section receives, while increasing the share going to the Society's Continuing Education Department.

Recently I noted that in a meeting of the Finance Practice Area, our Section, which traditionally has been aligned with the Life Practice Area, was reassigned to the Finance Practice Area. As most readers will know, the Society is organized into four practice areas, namely Life, Health, Finance (or Investment) and Pension. Each Section is informally aligned with a practice area. Should the Financial Reporting Section be aligned with the Life, when in fact many of our members work in health insurance? Perhaps not, yet is the fit with Finance a good one? Isn't the Finance Section mostly related to investments and asset issues? Regardless of the answer, how should the alignment work? Should there even be an alignment? What are the implications if there is no perfect fit?

Communication and Understanding

As a large Section, we have special interests and specialized knowledge. We work on issues different from but complementary to those of other Section members. We play important roles for our employers. We are proud of our Section and our Society of Actuaries. Perhaps we don't fit perfectly into the practice area structure as presently laid out. But we want to continue to benefit from and contribute to our profession. Given the size, influence and identity of our Section, we want to be sure that our Section and the Society are able to communicate and work together very closely.

As a Section member, what do you think? Are we playing the right roles relative to volunteering, educating, and funding our own activities? How do these roles mesh with those of the Society? I anticipate active and continued discussion of these questions at future Council meetings and with other members of the Society. If you have an opinion, contact one of your Council members (listed in the masthead).

Mike McLaughlin is a partner with Ernst and Young LLP in Chicago, IL.

An Actuarial Analysis of FAS 133 (Part 1)
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The key changes FAS 133 introduces are:

- All derivatives are recorded on the balance sheet and carried at fair value.
- A type of hedge accounting continues, but the treatment varies according to the type of hedge: fair value, cash flow or net investment in a foreign operation.
- Because all derivatives are now on the balance sheet, the mechanics of the new hedge accounting for fair value hedges require adjusting the carrying values of other accounts on the balance sheet (that is, the hedged items) in order to preserve the hedging effect in the income statement.
- Portions of the hedge considered ineffective are recognized in earnings and not deferred, creating volatility in earnings.
- Gains or losses on derivatives that qualify as cash flow hedges are initially recognized in other comprehensive income (OCI), creating additional volatility in equity.
- New and potentially onerous criteria to qualify for hedge accounting are established.
- The new rules are more flexible for foreign currency hedging, allowing the use of a broader range of hedging instruments and hedge strategies that previously were disallowed.
- Derivatives are now defined based on distinguishing characteristics rather than by reference to specific types of instruments. This results in some new classes of instruments now being considered derivatives.
- Disclosure requirements are modified significantly.

Scope

FAS 133 is effective for years beginning after June 15, 2000, but companies may early-adopt as of the beginning of any fiscal quarter. The Statement requires that the documentation of existing hedging relationships be completed before the date of initial adoption. Many insurers will likely delay adopting FAS 133 until the year 2001.

The Statement excludes certain traditional insurance and financial guarantee contracts whereby the holder of the contract is to be compensated only if, as a result of an identifiable insurable event (other than a change in price), the holder incurs a liability or there is an adverse change in the value of a specific asset or liability for which the holder is at risk. However, the FASB finds that some insurance contracts may contain derivative-like features, and these contracts receive unique accounting treatment.

Overview

FAS 133 defines a derivative to be a financial instrument with four distinguishing characteristics:

- The instrument has an *underlying* variable (like a stock price or interest rate) that causes fluctuations in its cash flows or fair value.
- The instrument has a *notional amount* which, when combined with movements in the underlying, determines the settlement amount(s) of the derivative. Note that the parties involved do not invest in or purchase the notional amount.
- The instrument does not require a significant net investment.
- The instrument permits net settlement in cash rather than by delivery of the notional amount.

FAS 133 requires all derivatives to be recorded on the balance sheet at fair value (as defined in FAS 107, *Disclosures about Fair Value of Financial Instruments*) and establishes "special (or hedge) accounting" for three different types of hedges: hedges of changes in the fair value of assets, liabilities or firm commitments (referred to as fair value hedges); hedges of the variable cash flows of forecasted transactions (cash flow hedges); and hedges of net investments in foreign operations. Though the accounting treatment and criteria for each of the three types of hedges are different, all three require that the effective portion of gains or losses from the hedging instrument and from the hedged item be recognized in earnings in the same period. Gains and losses that are not effective in a hedging relationship are recorded in current-period earnings. Changes in the fair value of derivatives that do not meet the criteria of one of these three categories of hedges are also included in current-period earnings.

Under FAS 133's new form of hedge accounting, hedges of changes in the fair value of existing assets, liabilities, or firm commitments result in the recognition in earnings, in the period that a change in value occurs, of gains or losses from a derivative designated as the hedging instrument. Simultaneously, changes in the fair value of the hedged item, to the extent they are attributable to the risk designated as being hedged (for example, market interest rate risk or credit risk), are recognized in earnings and as an adjustment to the carrying value of the hedged item. Changes in fair value of derivatives designated as cash flow hedges are recorded in other comprehensive income (a separate component of stockholders' equity) until the forecasted transaction affects earnings, at which time it is also recognized in earnings. In a cash flow hedge, no adjustment is made to the carrying amount of the hedged item.

Embedded Derivatives

FAS 133 significantly expands the definition of a derivative to include many items that were not previously considered to be derivatives. The FASB believed it important to prevent an entity from avoiding the requirements of FAS 133 by embedding a derivative instrument in a non-derivative financial instrument or other contract. Therefore, in addition to financial instruments traditionally called derivatives (swaps, futures, forwards, options, swaptions, caps, collars, floors, etc.), certain *embedded derivatives* are included in the scope of FAS 133 if, were they freestanding, they would be considered derivatives under FAS 133. Instruments that contain embedded derivatives are referred to as *hybrid instruments.*

FAS 133 defines an embedded derivative as implicit or explicit terms within a contract, which does not in itself meet the definition of a derivative instrument, that affect the contract in a manner similar to a derivative instrument. In other words, an embedded derivative is a derivative wrapped inside another contract which is not a derivative. For example, a bond that may be converted into stock of the issuer is a debt instrument that contains an embedded derivative. While traditional insurance contracts are excluded from the Statement, insurers will find that many new-generation products such as equity-indexed annuities and variable products with certain ancillary guarantees contain embedded derivatives.

FAS 133 requires that in certain circumstances embedded derivatives be *bifurcated* (or separated) from the *host contract* and measured separately. Embedded derivatives that are required to be bifurcated and measured separately are treated in the same manner as freestanding derivatives under FAS 133. In determining whether a hybrid instrument contains an embedded derivative that warrants bifurcation, FAS 133 focuses on whether the economic substance of the potential embedded derivative is *clearly and closely related* to the economic substance of the host contract.

Hedge Criteria

"Special" hedge accounting can only be obtained for permissible hedgeable risks and for specific items or transactions that qualify. Permissible hedgeable risks under FAS 133 for financial instrument-related exposures are:

- Market price risk
- Market interest rate risk
- Foreign exchange risk
- Credit (default) risk

The hedged item can be the entire item or a percentage of the entire item, or pools of similar items (or specific portions thereof). Such items can include selected cash flows. However, risks cannot be hedged on an enterprise-wide or "macro" basis.

To qualify as either a fair value or cash flow hedge, the hedge relationship must meet the following principle criteria:

- Formal documentation of the hedging relationship and its objective must be maintained.
- Hedging effectiveness is required to be demonstrated whenever earnings are reported.
- The hedged item is one that could affect reported earnings.

There can be simultaneous fair value and cash flow hedging of the same item only if different risks are being hedged. For instance, a cash flow hedge can hedge the market interest rate risk associated with the variable interest payments on an investment in a debt security, while a fair value hedge is used to hedge the default risk.

Fair Value Hedges

Fair value hedges address risks that arise in investments or liabilities due to terms that are fixed or known. Fair value hedges can also be used to hedge firm commitments, which are transactions that will take place in the future where all the terms are fixed in advance. Fair value hedges allow entities to mitigate the risks arising from changing market conditions when they are bound to a fixed price or rate. For relationships that qualify as fair value hedges, the effective portion of the gain or loss on the hedging instrument as well as an offsetting loss or gain on the hedged item attributable to the risk being hedged are recognized in current-period earnings in the same accounting period. Provided the hedge qualifies as "highly effective," the portion of the change in fair value of the derivative that is deemed "ineffective" is recognized in earnings without an offsetting adjustment in the hedged item.

Cash Flow Hedges

Cash flow hedges address risks that arise in investments or liabilities due to terms that are variable in nature. Cash flow hedges can also be used to hedge forecasted transactions whose terms are not fixed in advance. Cash flow hedges allow entities to mitigate risks arising from changing market conditions to which they would otherwise be exposed. For relationships that qualify as cash flow hedges, the effective portion of the gain or loss on a derivative instrument is reported as a component of other comprehensive income and later reclassified into earnings in the same period when the hedged forecasted transaction affects earnings. The effective portion can be determined by comparing the cumulative change in fair value of the derivative with the cumulative change in the present value of the expected cash flows of the item being hedged. To the extent that the cumulative change in the derivative exceeds the cumulative change in the present value of expected cash flows, the excess is recognized in current-period earnings. But the difference between the two cannot be so great as to cause the derivative to no longer be "highly effective."

Transition Considerations

Early adoption of FAS 133 is permitted as of the beginning of any fiscal quarter, but must be applied to all derivatives. Retroactive application is not permitted. At adoption, an insurer will recognize the cumulative transition effect on both income and other comprehensive income based on the nature of the particular hedge relationships (fair value vs. cash flow) to which it is a party.

Because of changes in the rules for hedging investments, the transition provisions of FAS 133 permit held-to-maturity securities under FAS 115, *Accounting for Certain Investments in Debt and Equity Securities,* to be reclassified at the date of adoption as either available-for-sale or trading without the entire held-to-maturity portfolio being tainted. Further, available-for-sale securities may be reclassified as trading.

At adoption, companies may either (a) recognize as an asset or liability all embedded derivatives that are required to be separated from their host counterparts pursuant to the Statement, or (b) select either January 1, 1998, or January 1, 1999, as the transition date for embedded derivatives. Thus, an insurer can choose not to apply the bifurcation provisions of FAS 133 to embedded derivatives on hand prior to adoption date and could continue to account for these instruments as it did prior to FAS 133. This provision must be applied to all embedded derivatives and cannot be selectively applied. As of adoption, all embedded derivatives entered into after December 31, 1998, must be accounted for as required under FAS 133.

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Demutualization: Filling the "GAAP" in Accounting

by Darryl G. Wagner and Patricia E. Matson

The insurance industry has entered a period of consolidation, reorganization, and rethinking of strategic direction. For mutual insurers, this means evaluating options such as demutualization or conversion to a mutual insurance holding company (MIHC). Demutualization is the process by which a mutual insurance company converts to a stock insurance company. Upon demutualization, policyholders exchange their membership rights in the mutual insurance company for some form of compensation. Types of compensation include stock, cash, policy credits, and subscription rights (which give policyholders first rights to purchase stock). An alternative to demutualization is for a mutual insurance company to form an MIHC. In this instance, the mutual insurer is converted to stock form and becomes a stockholder-owned entity that operates as a subsidiary of the newly formed MIHC. Policyholder membership rights are transferred to the MIHC, while contractual rights are maintained in the stock company.

Nearly all states have regulations regarding demutualization, and many also have statutes regulating conversion to an MIHC. Regulations generally specify certain requirements regarding the protection of the rights of mutual company policyholders, such as rights to vote, rights to participate in the divisible surplus of the company through dividends, and rights to company surplus in the event of liquidation.

Many unique accounting issues arise when a mutual insurer demutualizes or converts to an MIHC. The American Institute of Certified Public Accountants (AICPA) has formed a Demutualization Task Force to address several issues regarding GAAP for mutual companies that have converted. The key issues and the preliminary recommendations of the task force are outlined in the sections that follow.

Reporting of GAAP Earnings - the Policyholder Dividend Obligation

In connection with a demutualization or the formation of an MIHC, most state insurance departments have required (and will likely require in the future) that a closed block or alternative mechanism be established to protect the dividend expectations of participating policyholders. Generally, specific assets are allocated to the closed block to meet the future obligations of included policies.

The assets allocated to the closed block are in an amount such that they, together with future revenue from closed block policies, will provide sufficient cash flows for all future policy benefits, certain expenses, and dividends at the current scale. The determination of assets assumes continuation into the future of the current dividend scale and experience underlying the current dividend scale.

Over time, actual closed block experience will differ from that assumed for funding purposes, and therefore, the policies in the closed block will generate excesses or shortfalls in earnings (as compared with initial projections). Since excess earnings typically cannot be taken out of the closed block, they must be returned to policyholders through increased dividends. One approach to recognizing that the required ultimate return of such excess earnings "belongs" to policyholders rather than shareholders is to establish an additional liability for closed block policyholders which is referred to as a "policyholder dividend obligation."

A policyholder dividend obligation (PDO) represents the accumulated earnings of the closed block in excess of the pattern anticipated in the initial funding. Such amounts will result in additional future dividends to closed block policyholders, unless otherwise offset by future negative performance of the closed block.

If a PDO is not created, excess closed block earnings would be recorded as profit from the closed block and would therefore be part of the closed block contribution that benefits shareholders. Shareholder profits would increase at the time of the excess earnings and would be reduced in future years as dividend scales are increased to return the excess earnings to closed block policyholders.

To provide additional perspective regarding the mechanics of the PDO, we developed a simple example of the balance sheet and income statement impact of the closed block, both with and without a PDO, under three interest rate scenarios.

The example shows, for each scenario, five years of policy cash flows, balance sheets, and income statements for a book of business that consists of paid-up participating life insurance contracts. The total starting assets of the company are assumed to be $500,000, and the entire book of business is assumed to be in the closed block. Annual dividends paid to the policyholders equal 50% of the excess interest earned over the 4% guaranteed interest on the policy funds during the year. For simplicity, it was assumed that no lapses or deaths would occur, and lapse and mortality rates were excluded from reserve calculations.

Table I shows amounts assuming that interest rates over the five-year period are equal to those assumed in determining closed block assets and liabilities. On the balance sheet, starting closed block assets are calculated as the present value of future benefit and dividend payments, discounted at the assumed earned rate (7.0%). The starting closed block assets ($427,601) are less than the starting GAAP reserve ($445,182) because the assets are set aside based on the assumed earnings rate while the GAAP reserve is established using the lower contractual rate (4.0%) to discount the future cash flows. For years two through five, closed block assets equal the prior year amount plus interest earned, less benefit payments and dividends.

Table I						
Balance Sheet	Beginning of Year					
	1	2	3	4	5	6
Closed Block Assets	$427,601	$350,855	$269,970	$184,706	$94,806	$0
Deferred Acquisition Costs	8,791	6,067	3,769	1,952	674	0
Other Open Block Assets	63,608	68,061	72,825	77,923	83,378	89,214
Closed Block Liabilities						
Benefits	$445,182	$362,990	$277,509	$188,609	$96,154	$0
PDO	0	0	0	0	0	0
Total	$445,182	$362,990	$277,509	$188,609	$96,154	$0
Equity	$54,818	$61,994	$69,056	$75,971	$82,704	$89,214
Income Statement	Year					
	1	2	3	4	5	Total
Interest on Open Block Assets	$4,453	$4,764	$5,098	$5,455	$5,836	$25,606
Contribution from Closed Block						
Interest Earned on Assets	$29,932	$24,560	$18,898	$12,929	$6,636	$92,956
Benefits	100,000	100,000	100,000	100,000	100,000	500,000
Dividends	6,678	5,445	4,163	2,829	1,442	20,557
Amortization of DAC	2,724	2,298	1,817	1,278	674	8,791
Change in Benefit Reserve	(82,193)	(85,480)	(88,900)	(92,456)	(96,154)	(445,182)
Change in PDO	0	0	0	0	0	0
Total Contribution	$2,724	$2,298	$1,817	$1,278	$674	$8,791
Total Profit	$7,176	$7,062	$6,915	$6,733	$6,510	$34,396
Some amounts may not reconcile due to rounding.						

(continued on page 8, column 1)

An Actuarial Analysis of FAS 133 (Part 1)
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Implementation

The Statement's breadth and complexity will make the implementation effort daunting. Hedge relationships must now be documented at adoption date and most companies will need system modifications to develop and track the required changes in fair value, hedge effectiveness and related accounting entries. Also, while the Statement specifically excludes certain traditional insurance contracts from its scope, some products that previously were considered as insurance products instead have to be accounted for in whole or in part as derivatives under FAS 133. While the FASB's recent decision to delay the required adoption date effectively to January 1, 2001, provides some desperately needed breathing room for most insurance companies, systems and business process changes may take between 3 and 12 months to effectuate. Many insurers will need to work around events such as Year 2000 black-out periods, the 1999 year-end financial reporting cycle, business acquisitions and other activities.

From a systems perspective, the following checklist identifies minimal functional requirements for a FAS 133 compliant implementation:

- Manage formal hedge documentation at FAS 133 adoption and at hedge inception
- Manage hedge designations
- Measure hedge effectiveness
- Attribute gains and losses to risk factor
- Manage OCI accounting
- Perform mark-to-market of hedges and, where necessary, hedged items

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Demutualization: Filling the "GAAP" in Accounting
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For simplicity, the initial deferred acquisition costs (DAC) asset was set equal to 50% of the difference between the beginning closed block assets and the beginning closed block liabilities. This also equals the total expected future profits (undiscounted) on the book of business, since the remaining 50% of the excess of closed block liabilities over closed block assets is released from the closed block over time. The expected future profits on the book of business that will be included in the company's net income (after DAC amortization) are shown in the income statement line labeled "total contribution." For years two through five, DAC equals the prior year amount less amortization.

Starting open block assets equal $500,000 (the total starting assets of the company) less closed block assets and DAC. For years two through five, open block assets equal the prior year amount plus interest earned.

GAAP reserves are calculated as the present value of future benefits, discounted at the guaranteed rate of interest (4.0%). Since in this example, experience over the five-year period equals initial estimates, no PDO is created in any year.

On the income statement, interest on open and closed block assets equals the actual earned rate (7.0%) multiplied by the beginning amount of assets. DAC is amortized in proportion to profits (total contribution) on the book of business (and, since the expected gross profit has been divided equally in our example between DAC and the company's profit after amortization of DAC, DAC amortization is exactly equal to total contribution).

The profits emerging on the book of business may be viewed as the gradual release of the "closed block deficit," or the excess of closed block liabilities over closed block assets. The initial closed block deficit is $17,581, which equals the sum of total DAC amortization and total contribution from the closed block over the five-year period.

Tables II and III show amounts under a scenario in which the interest earned in year one is one percentage point greater than assumed (8.0%), on the closed block assets only. Since the excess interest earned in year one can not be "removed" from the closed block, it must be distributed to policyholders through increased dividends. In Table II, no PDO is assumed to be created, while in Table III a PDO is assumed.

In year 1, the Table II dividend is identical to that of Table I since we assume that no additional amount would be distributed until after the results for the year are known. Therefore, dividends in years two through five were increased (by a flat amount each year) such that the closed block asset balance is $0 at the end of year five, and the total contribution from the closed block remains unchanged. The flat addition to the year 2 through 5 dividends ($1,263 per year) was calculated by assuming that the original excess earnings amount would be distributed evenly over the remaining contract term, with each year's remaining balance increasing at 7% interest per year.

Table II

Balance Sheet	Beginning of Year					
	1	2	3	4	5	6
Closed Block Assets	$427,601	$355,131	$273,283	$186,988	$95,985	$0
Deferred Acquisition Costs	8,791	3,929	2,113	811	84	0
Other Open Block Assets	63,608	68,061	72,825	77,923	83,378	89,214
Closed Block Liabilities						
Benefits	$445,182	$362,990	$277,509	$188,609	$96,154	$0
PDO	0	0	0	0	0	0
Total	$445,182	$362,990	$277,509	$188,609	$96,154	$0
Equity	$54,818	$64,132	$70,712	$77,112	$83,293	$89,214

Income Statement	Year					
	1	2	3	4	5	Total
Interest on Open Block Assets	$4,453	$4,764	$5,098	$5,455	$5,836	$25,606
Contribution from Closed Block						
Interest Earned on Assets	$34,208	$24,859	$19,130	$13,089	$6,719	$98,005
Benefits	100,000	100,000	100,000	100,000	100,000	500,000
Dividends	6,678	6,707	5,425	4,092	2,705	25,607
Amortization of DAC	4,862	1,816	1,302	727	84	8,791
Change in Benefit Reserve	(82,193)	(85,480)	(88,900)	(92,456)	(96,154)	(445,182)
Change in PDO	0	0	0	0	0	0
Total Contribution	$4,862	$1,816	$1,302	$727	$84	$8,791
Total Profit	$9,314	$6,580	$6,400	$6,181	$5,920	$34,396

Some amounts may not reconcile due to rounding

In Table II, since excess interest is earned in year one, but is not paid out in dividends until years two through five, the pattern of profits emerging from the closed block changes; more profit is released in year one, and less is released in years two through five. The change in profit pattern results in a proportional change in DAC amortization. The contribution from the closed block does not change in total, but the pattern of the contribution changes.

An analysis of the difference in the first year contribution from the closed block in Table II versus Table I is as follows:

Table I first year contribution $2,724
Excess earnings on closed block assets 4,276
Additional DAC amortization (equals 50% of excess earnings) . . . .(2,138)
Table II first year contribution **$4,862**

In Table III, the PDO at the beginning of year two equals the excess interest earned in year one, which is the amount that will be paid out in extra dividends in years two through five. For years three through five, the PDO equals the prior year PDO plus interest, less the extra dividend payment. Creation of the PDO causes profits to emerge as originally expected, so that both total contribution and the pattern of contribution are the same as shown in Table I. In addition, DAC amortization is the same as shown in Exhibit I.

Table III

Balance Sheet	Beginning of Year					
	1	2	3	4	5	6
Closed Block Assets	$427,601	$355,131	$273,283	$186,988	$95,985	$0
Deferred Acquisition Costs	8,791	6,067	3,769	1,952	674	0
Other Open Block Assets	63,608	68,061	72,825	77,923	83,378	89,214
Closed Block Liabilities						
Benefits	$445,182	$362,990	$277,509	$188,609	$96,154	$0
PDO	0	4,276	3,313	2,282	1,179	0
Total	$445,182	$367,266	$280,822	$190,892	$97,333	$0
Equity	$54,818	$61,994	$69,056	$75,971	$82,704	$89,214

Income Statement	Year					
	1	2	3	4	5	Total
Interest on Open Block Assets	$4,453	$4,764	$5,098	$5,455	$5,836	$25,606
Contribution from Closed Block						
Interest Earned on Assets	$34,208	$24,859	$19,130	$13,089	$6,719	$98,005
Benefits	100,000	100,000	100,000	100,000	100,000	500,000
Dividends	6,678	6,707	5,425	4,092	2,705	25,607
Amortization of DAC	2,724	2,298	1,817	1,278	674	8,791
Change in Benefit Reserve	(82,193)	(85,480)	(88,900)	(92,456)	(96,154)	(445,182)
Change in PDO	4,276	(963)	(1,031)	(1,103)	(1,179)	0
Total Contribution	$2,724	$2,298	$1,817	$1,278	$674	$8,791
Total Profit	$7,176	$7,062	$6,915	$6,733	$6,510	$34,396

Some amounts may not reconcile due to rounding.

(continued on page 10, column 1)

Demutualization: Filling the "GAAP" in Accounting
continued from page 9

Arguments in favor of creation of a PDO include:

- Consistency with Statement of Financial Accounting Standards No. 60 (FAS 60), *Accounting and Reporting by Insurance Enterprises* and the caveats contained in Statement of Position (SOP) 95-1, *Accounting for Certain Insurance Activities of Mutual Life Insurance Enterprises*. For example, FAS 60 states "the policyholders' share of net income on those contracts that cannot be distributed to stockholders shall be excluded from stockholders equity by a charge to operations and a credit to a liability…" and SOP 95-1 states "while segregating undistributed accumulated earnings on participating contracts in a manner similar to minority interests may be meaningful in a stock life insurance company, it is not meaningful for a mutual life insurance enterprise, because the objective of such presentation is to identify amounts that are not distributable to stockholders"

- Avoidance of "inappropriate" fluctuations in shareholder earnings.

Arguments against the need for a PDO include:

- The inherent "cap" on shareholder profits (equal to the closed block deficit)

- The impact of DAC amortization, which tends to reduce volatility

- The fact that volatility of results is simply part of the accounting model for this type of business

The tentative conclusion of the task force is that a PDO should be created, since it will prevent premature recognition of shareholder profits on the closed block business, and it reflects the nature of the excess earnings as being distributable to policyholders.

The task force also concluded that in the event that experience is less favorable than originally estimated, no negative PDO, or "Policyholder Dividend Asset" should be created.

> ***"The tentative conclusion of the task force is that a PDO should be created, since it will prevent premature recognition of shareholder profits on the closed block business, and it reflects the nature of the excess earnings as being distributable to policyholders."***

Other items addressed by the task force are:

Applicable financial accounting standards:
According to FASB Statement No. 120, *Accounting and Reporting by Mutual Life Insurance Enterprises and by Insurance Enterprises for Certain Long-Duration Participating Contracts*, stock insurance companies writing participating business may account for such business under FAS 60 or SOP 95-1. However, mutual companies must follow the guidance prescribed by SOP 95-1 if participating policies meet certain criteria. The task force tentatively concluded that accounting guidance in SOP 95-1 should continue to be applied by demutualizing insurers after demutualization to all participating contracts that meet the conditions of SOP 95-1. The task force also concluded that the segregation of undistributed accumulated excess earnings on participating contracts is meaningful in a stock life insurance company because the objective of such segregation is to identify amounts not distributable to stockholders. Therefore, the provisions of paragraph 42 of FASB Statement No. 60 relating to dividends on participating contracts should apply to such contracts sold before and after the date of conversion.

Closed block treatment on balance sheet and income statement:
For demutualizations that have occurred to date, closed block financial information has been shown as single line items on the balance sheet (one for closed block assets and one for closed block liabilities) and income statement (the contribution from the closed block). An alternative to this presentation is to use a fully consolidated approach. The task force tentatively recommended that a consolidated approach be used for the balance sheet and income statement. The task force also recommended disclosure requirements for the closed block, which include a description of the closed block and selected financial data for the closed block.

Accounting for retained earnings at the date of demutualization:
The task force tentatively concluded that an insurance enterprise converting under a distribution form of demutualization should reclassify all accumulated retained earnings of the demutualized insurance enterprise as of the date of demutualization to capital stock and paid-in capital accounts. The rationale is that this most appropriately reflects the nature of the policyholder distribution, which is a distribution of the then-existing equity to the "owners" of the mutual insurer's equity. The task force also tentatively concluded that no such reclassification was necessary in the event of a subscription rights demutualization or conversion to an MIHC.

Accounting for dividends in an MIHC:
Another issue addressed by the task

force relates to the treatment of dividends paid from a stock insurance subsidiary to an MIHC. Since the MIHC has ownership interests in the converted stock company, it will receive stockholder dividends from the stock company. The task force tentatively concluded that a dividend declared by a stock insurer (and/or its holding company) payable to its shareholder(s) is a common corporate capital transaction. Therefore, a cash dividend to the MIHC should be accounted for no differently than any other dividend to stockholders. Under existing laws or regulations, an MIHC is required to own controlling voting interest in the stock insurance company, and therefore should reflect the stock insurance company or intermediate holding company on a consolidated basis, and the intercompany dividend would therefore be eliminated.

The task force is still in the process of discussing tentative conclusions with AcSEC and FASB. The current expectation is completion of an exposure draft SOP regarding accounting related to mutual company conversions in early 2000. Given the number and size of mutual insurer conversion transactions currently underway, this guidance will have a significant impact and truly fill an important "GAAP" in accounting.

We encourage actuaries to review the draft SOP and provide comments and suggestions. To receive a copy of the draft, please contact the American Academy of Actuaries or visit the AICPA website at aicpa.org.

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New Developments in E & E

by Larry Gorski

By now, most actuaries are well aware of the significant changes in the SOA Education and Examination syllabus that are scheduled to occur during 2000. The new syllabus emphasizes actuarial principles while relegating nation-specific material to examples that illustrate more general actuarial principles or the Professional Development component. For instance, US statutory accounting and the Standard Valuation Law will not be studied in detail by students as they progress through the SOA actuarial examination process. This means that a person becoming an FSA under the new syllabus may not have studied the rules of U.S. statutory accounting or the reserving method defined in the Standard Valuation Law as part of any examination part of the SOA Education and Examination system.

This situation creates a problem for the American Academy of Actuaries in its role of promulgating qualification standards for actuaries. The newly adopted (10/1/98) Qualification Standards for Prescribed Statements of Actuarial Opinion (PSAO) identifies both General Standards, and for some PSAOs, Specific Qualification Standards that must be met before an actuary can sign a PSAO. In general, actuaries signing a PSAO that must be filed with a statutory annual statement that deals with reserves must meet both the General and Specific Qualification Standards. The Specific Qualification Standards are satisfied by successfully completing relevant examinations administered by the American Academy of Actuaries, the Casualty Actuarial Society, or the Society of Actuaries on topics such as policy forms and coverages, dividends and reinsurance, statutory insurance accounting and valuation of liabilities. With the change in the SOA syllabus, new FSAs will not be tested on all of these items.

The American Academy of Actuaries, through its Council on Professionalism, has been working with the leadership of the SOA to develop a seminar and testing program designed so that new FSAs can meet the Specific Qualification Standards associated with life and health annual statement opinions. Current thinking is that the seminar will run for two to three days with a test at the end of the seminar. While not yet finalized, it is expected that the seminar will cover U.S. statutory accounting, the Standard Valuation Law, the Actuarial Opinion and Memorandum Regulation and any relevant Actuarial Standards of Practice. The test is not intended to evaluate memorization skills but problem solving skills, so it may be of the open book variety. Since the amount of material to be covered during the seminar is expected to be significant, participants will probably be expected to review some specific material before the start of the seminar.

The Academy task force responsible for this project will be chaired by Robert B. Likins. Bob chaired the Academy Committee on Qualifications, which was responsible for developing the recently adopted Qualification Standards for Prescribed Statements of Actuarial Opinion.

Because of the need to get the seminar program up and running by the fall of 2000, the Academy is communicating with the leadership of the Society of Actuaries in trying to resolve issues on a timely basis. The Section may be asked to provide input on specific aspects of the seminar and testing program. The SOA Financial Reporting Section will continue to keep its members informed through this newsletter of any new developments.

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COLIFR Corner

by Kevin Palmer

Editor's Note: COLIFR is the American Academy of Actuaries' Committee on Life Insurance Financial Reporting. COLIFR monitors activities related to life insurance and annuity financial reporting and is actively involved in many of these activities. The committee conducts analysis and makes recommendations regarding the actuarial aspects of financial reporting issues.

COLIFR met on June 11, 1999, in Chicago, on October 12, 1999, in New York City and on December 14, 1999, in Orlando. A meeting is scheduled for March 15, 2000, in Chicago. Dan Kunesh now chairs the committee, having assumed that role from Ed Robbins at the October meeting.

Valuation Task Force

The American Academy of Actuaries' Valuation Task Force (VTF) continues to work toward a Unified Valuation System (UVS). The framework currently envisioned would include:

- The use of S-curve analysis to determine a minimum level of assets required in support of reserves and risk-based capital
- Continued use of formula reserves for existing products, with S-curve analysis used to determine reserves for innovative products
- Preparation of a vitality/viability report examining resources needed to execute the company's business plan
- Discussion of low likelihood/high impact risk events

The VTF discussed its work with the NAIC Life and Health Actuarial Task Force (LHATF) at meetings in August and October. The LHATF is supportive of the direction the project is taking.

Topics currently being developed by the VTF include valuation of non-guaranteed elements and the appropriate role of a "reviewing actuary." The task force is also compiling a list of possible research projects for consideration by the Society of Actuaries or others. The task force may offer a one-day seminar on the Unified Valuation System (UVS) next fall. Dave Sandberg, a member of COLIFR, is now chairing the VTF.

Other LHATF Items

A revised Actuarial Opinion and Memorandum Regulation (AOMR) was exposed for comment. The revised AOMR would allow actuaries to file "state of domicile" in states enacting such provision. It would also require Section 7 companies to compare statement reserves to gross premium valuations.

There has been much recent discussion of issues related to GICs and other products with liquidity provisions that can be triggered in the event of a ratings downgrade. An Academy work group has been formed to consider statutory reserve requirements and liquidity and risk management practices.

Actuarial Guideline ZZZZ, which discusses reserving for Equity Indexed Universal Life products, was adopted by the LHATF in June but will not be made effective for 1999. The guideline currently describes two types of computational methods and requires quarterly actuarial certifications. The LHATF Innovative Products Working Group may continue to consider other computational methods.

"There has been much recent discussion of issues related to GICs and other products with liquidity provisions that can be triggered in the event of a ratings downgrade."

An Academy work group has drafted an actuarial guideline to clarify statutory reserve requirements for Guaranteed Minimum Death Benefits offered with variable life insurance products. The method recommended would require reserves equal to the greater of 1) one-year term reserves assuming an immediate one-third drop in account values, and 2) attained-age level reserves covering the entire guarantee period and assuming no immediate drop in account values.

The Academy's Variable Annuities with Guaranteed Living Benefits (VAGLB) Working Group continues to look at possible reserving methodologies. The group has developed a single scenario, Guideline 34-like approach called the "Keel Method." The Keel Method appears to produce appropriate reserves for "roll-up" benefit designs, but not for "ratchet" designs where benefits are path-dependent.

Risk Based Capital (RBC)

The C-3 Subgroup of the AAA Life RBC Task Force presented a proposal at the October NAIC meeting. The NAIC RBC Working Group agreed to expose the proposal for comment, with a vote at the December meeting. If adopted, the method of calculating the C-3 component would change effective for December 31, 2000.

For a company filing a Section 8 opinion, the C-3 requirement related to cash flow tested fixed annuity and single pay life products would be calculated based on the same cash flow testing model used to support the actuarial opinion, but run over different interest scenarios. A method of measuring results has been designed to approximate the 95th percentile C-3 risk. A company could test over 50 annually prescribed interest scenarios, or over a more conservative 12-scenario set. Testing could be done as of a date other than 12/31, with the ratio of required C-3 to tested reserves at the "as-of" date then applied to 12/31 reserves. The Appointed Actuary would need to certify that assumptions used are not unreasonable for the products, scenarios and regulatory purpose being tested.

The C-3 amount required for tested annuity and single pay life products would be added to formula amounts required for all other products and for callable assets supporting untested products or surplus. The overall C-3 RBC component would be limited to between half and twice the amount that would be calculated based on current factors and instructions. Testing indicates C-3 RBC would be less than the current formula amount if interest rate risk is reasonably well managed.

GAAP Developments

The FASB exposure draft *Proposed Statement of Financial Accounting Concepts: Using Cash Flow Information and Present Value in Accounting Measurements* was published on March 31. The FASB has indicated the guidance in this document would be used in estimating the fair value of insurance liabilities. COLIFR submitted a comment letter, expressing concern about the application of certain concepts to the valuation of insurance liabilities. One such concept is that the value placed on insurance liabilities should reflect the insurance company's credit rating. COLIFR will continue to engage in discussions of this important and controversial topic.

The AICPA is drafting a Statement of Position (SOP) on accounting for demutualizations and formations of mutual holding companies. The target is to make the SOP effective for fiscal years beginning after December 15, 2000. The current version would require presentation of closed block assets, liabilities and operating results on a fully consolidated basis rather than as single line items. Participating contracts would be accounted for under SOP 95-1, except a company that demutualized prior to the effective date of SFAS 120 and elected not to adopt SFAS 120, could continue to apply SFAS 60. In a departure from SOP 95-1, however, the draft SOP would apply the provisions of paragraph 42 of SFAS 60. This requires the establishment of a dividend liability so amounts accruing to policyholders are not reported with shareholders' equity.

An AICPA Discussion Paper on "Accounting by Life Insurance Enterprises for Deferred Acquisition Costs on Internal Replacements Other Than Those Covered by FASB Statement No. 97" was published on June 25, 1999. COLIFR submitted comments on this paper, taking the position that additional accounting guidance is needed in this area to promote consistency of practice. COLIFR suggested it may be appropriate to continue deferral of costs associated with a replacement policy when there is evidence the replacement is a continuation of the prior contractual relationship.

COLIFR intends to develop a set of GAAP Practice Notes. A GAAP practice survey has been prepared and will be distributed soon to company chief actuaries.

Professional Development

The Academy is reviewing Qualification Standards in light of the new SOA education system. General Qualification Standards appear to be covered, but it is thought the Academy may need to develop a new exam to maintain the Specific Qualification Standards required to sign an Annual Statement opinion. Current thinking is this could be an open-book exam following a 3-day seminar, and completion of the course would fit within the formal program component of the SOA Professional Development Requirement.

COLIFR will continue to follow these topics and others involving financial reporting. Progress will be reported in future issues of *The Financial Reporter*.

***Kevin Palmer is vice president with American Express Financial Advisors in Minneapolis, MN. He can be reached at* kevin.e.palmer@aexp.com.**

Passing of the gavel at October Council meeting

Financial Reporting Section Chairperson Mike McLaughlin presents a gavel to outgoing chairperson Shirley Shao as a token of the Section's appreciation, with retiring treasurer Ed Robbins looking on.

Section Council Commits to Producing GAAP Textbook

by Tom Herget

Under the leadership of recent and current Section chairs, your Council has committed to creating a new textbook on U.S. GAAP for life insurance company actuaries.

This idea has been percolating for several years. Then-rookie Council member Shirley Shao suggested to then-chair Craig Raymond a dire need for a GAAP reference that consolidated the many sources of authoritative literature. It was evident to those experiencing GAAP for the first time that there is no single, comprehensive source to go to for reference and for education.

The need for GAAP education will accelerate for two other reasons. One is that many companies around the globe are starting to prepare financial statements according to U.S. GAAP. Another reason is that the SOA examination syllabus will be dropping references to country-specific laws and practices. This escalates the mandate for professional development support.

So, it was decided that it would be a very worthy cause to use Section resources to create a GAAP textbook.

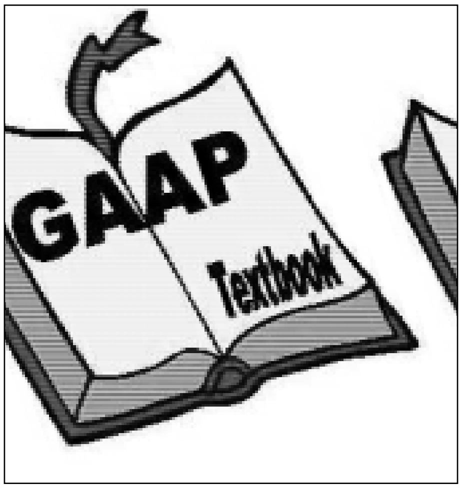
The project was initialized last spring with a Project Oversight Group. The POG comprises Tom Herget, Mike McLaughlin and Shirley Shao. The POG, with Section Council approval, appointed Herget as the chief editor and project manager.

The editor identified, contacted and persuaded nine authors to participate in this project. These nine volunteers are enthusiastically involved in researching and writing at this very moment.

The authors are Frank Buck, Dan Kunesh, Tom Kochis, Mike McLaughlin, Ed Robbins, Dave Rogers, Eric Schuering, Brad Smith and Jay Zellner. All but Tom Kochis are members of the Society of Actuaries. Mr. Kochis is a CPA and partner with an accounting firm. His insights on objectives of GAAP and investment accounting will be very valuable.

The authors were selected based on several criteria. One was that each had 20 years of experience with GAAP. A second was exposure to many companies in the industry. The third was a proven ability to be a good communicator.

An initial planning meeting was held in June of 1999. The authors and editor met for nearly a full day to discuss the scope of the book. Much debate focused on distinguishing principles from practices. The text will focus on principles based on existing accounting literature rather than enumerating common practices in the industry. The authors will strive to elaborate on what should be done rather than inventory the many practices that do



exist. However, several chapters will be devoted to practices where the principles are not defined.

This book will be a good source to learn, in a comprehensive way, how to apply U.S. GAAP.

The text will address these topics:

- ❑ Objectives of GAAP
- ❑ Background of GAAP
- ❑ Expenses (categorization, capitalization and definition of maintenance)
- ❑ Traditional Life under FAS60
- ❑ Traditional Life under FAS120
- ❑ Universal Life (fixed products)
- ❑ Deferred Annuity (fixed products) under FAS91 and FAS97
- ❑ Variable and other non-fixed products
- ❑ Income paying annuities
- ❑ Individual health
- ❑ Credit insurance
- ❑ Group contracts
- ❑ Investments
- ❑ FAS115 Shadow DAC
- ❑ Purchase Accounting
- ❑ Product classifications and GAAP for non-USA products
- ❑ Reinsurance
- ❑ All Other (deferred taxes, riders, fair value, and closed block)

The expected length is between 300 and 400 pages. It will include full narrative discussion of all topics plus formulas, reserve calculation examples and financial statement displays.

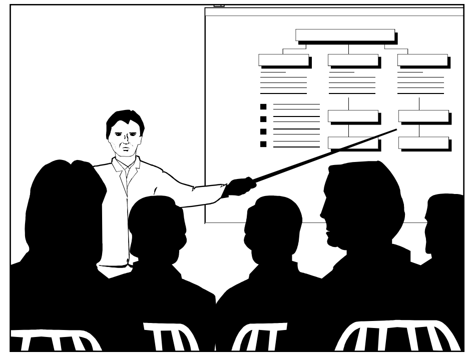
The process of writing this book is a little different from other collaborative efforts. There have been three writing meetings. The authors convened for four-day periods in a somewhat isolated location. All the authors brought their PCs and met in a conference room; cell phones were checked at the door. The authors wrote individually but frequently discussed and debated issues with the entire group. For example, the authors had a lively debate as to exactly which purchase accounting practices are addressed in authoritative literature.

Each author was assigned two chapters to write and two chapters to review. Each author selected areas where he could offer significant experience and expertise. By working together as a group, there were several benefits. One, the style of writing became more uniform. Two, the depth of coverage converged. Three, the authors worked together to distinguish principles from practices. The reader will be able to know what should be done, rather than reading about what has been done.

The writers have kept in mind the three target audiences. One is the near or recent Fellow who needs education on GAAP. A second target is the seasoned accountant who wants to know what the actuaries are doing. A third is a non-U.S. actuary who needs education in order to establish

Highlights of the December 1999 NAIC Life and Health Actuarial Task Force Meeting

by Raymond T. (Ted) Schlude



Editor's Note: The NAIC Life and Health Actuarial Task Force met on December 3-4, 1999, and discussed the following projects related to life insurance and annuities.

Innovative Products Working Group

The Innovative Products Working Group discussed the following projects:

Variable Annuities with Guaranteed Living Benefits (VAGLB)

The American Academy of Actuaries representatives presented an interim report of the VAGLB Working Group.

Discussion focused on reserve methods being used by companies in practice, risk management strategies in use, a review of the effectiveness of the Keel Methodology applied to GMIB designs and use of a limited flexibility approach to reserving which could be a substitute or replacement of the Keel method and one that would be considered a CARVM compliant approach.

Reserve methodologies currently being used in practice fall into three main categories:

(i) Modified Actuarial Guideline 34 Methodology: This approach includes AG 34 drops with significantly lower assumed returns than those contained in AG 34 itself which follows some of the initial conclusions of the VAGLB Working Group.

(ii) Retrospective Net Premium Method: The expected cost at issue is used to determine a net premium for the VAGLB, which is reflected in a traditional reserve accumulation formula.

(iii) Market Value Approach: The reserve is determined as the then market value of the embedded option-less the present value of future net premiums.

Reinsurance has played a significant role in some valuation methods, particularly those that cede off most or all of the VAGLB risk.

With respect to the Keel method, additional testing and analysis indicates that a single scenario Keel methodology works well for roll-up GMIB and roll-up GMAB designs currently in the market, but it is not an appropriate methodology for rat-chet GMIB or ratchet GMAB designs.

The VAGLB work group reviewed whether AG 35 "Option Cost" methods should be pursued for VAGLBs and concluded that neither book value nor market value methods described in AG 35 appear to work very well for VAGLBs.

Finally, the VAGLB working group recommended that a "Limited Flexibility" approach be pursued as one approach to developing CARVM compliant reserves for VAGLBs. This approach would provide the valuation actuary some limited flexibility in the determination of representative scenarios developed by the valuation actuary for VAGLB reserves. Return scenario assumptions would be standardized. The actuary would provide a certification that the representative scenarios meet the standardized benchmarking requirements.

The work group has a small number of remaining issues including looking at GLBs and MGDBs in combination, continuing to review other reserve methods for VAGLBs and to bring reinsurance into the analysis.

Because very little reserve accumulates in early years under the VAGLB reserve methodologies, provision for Risk Based Capital has been the most critical current issue. As a stopgap measure, the 1999 LRBC instructions were modified per an AAA recommendation to include provision for VAGLBs. A 1% C-3 factor will apply to the entire reserve (variable account value related reserve plus VAGLB reserve) provided an unqualified reserve adequacy opinion is submitted and the fund balance is not less than the effective floor. Otherwise, a 2% factor would apply.

Reserving for Equity Indexed Life Insurance (AG ZZZZ)

AG ZZZZ had been referred back to LHATF by the Life (A) Committee because a new method that stabilized reserves had been added to AG ZZZZ

(continued on page 16, column 1)

GAAP Textbook

continued from page 14

GAAP accounting for his or her company.

The authors have set a goal for completing all writing and reviewing by June. This will permit the first set of published books to arrive in time for distribution at the SOA's annual meeting in Chicago. There will be a special session where the authors present the text and discuss its content. Those who attend will have the opportunity to receive a copy of the book autographed by all those authors in attendance.

Order forms will be available soon. You should start thinking about how many you want to order. In addition to gracing your own book shelf, don't overlook these as possible birthday or holiday gifts to friends.

The Section wishes to thank its members who are supporting this project.

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Highlights of the December 1999 NAIC Life and Health Actuarial Task Force Meeting
continued from page 15

prior to adoption of the original version by the NAIC. The revised AG ZZZZ was exposed by LHATF for comment. The reserving inherent in this guideline contemplates a one-year equity indexed guarantee, which is the product standard due to the flexible premium nature of the product. If guarantees extend beyond a year, then an enhancement to AG ZZZZ will be necessary. LHATF plans to schedule a conference call in January or February to review examples provided by the Academy of the reserving required by AG ZZZZ.

Non-forfeiture for Equity Indexed Annuities (NF-ZZZ)
The Academy presented a report on non-forfeiture issues related to equity-indexed annuities. This issue pertains to how minimum guaranteed cash values for new and renewing policyholders should be related. At its root is how the standard non-forfeiture law for annuities should be interpreted with respect to the cash value floor. The Academy noted that companies today are writing into the policy form that the customer renewing for a new term will receive treatment as a new policy owner for the duration of that term if this creates a more favorable result from a non-forfeiture standpoint. LHATF is considering allowing each state to determine its own position with respect to this issue and simply issuing a discussion draft of the issues involved.

Reserving for Bail-Outs Triggered by Insurer Downgrades
LHATF discussed the various reports and letters received from interested parties. The regulators decided to develop an actuarial guideline focused on rating agency bailouts. At the same time, they have asked the Academy to research the liquidity and risk management issue related to these types of provisions. The actuarial guideline would focus specifically on rating agency downgrade provisions and not deal with other features such as put options and other possible embedded options.

Non-forfeiture for Products with Secondary Guarantees (AG XYZ)
LHATF has been considering whether or not to require a XXX type approach to be applied for non-forfeiture inherent in UL policies with secondary guarantees that extend beyond 20 years. Proponents argue that, if a policy behaves like a longer term or whole life type policy, it should be subject to the SNFL just like any traditional life product. Others argue that the market should allow a no-cash value type product because it will be cheaper to the consumer and therefore is in the public's best interest to allow such a product provided they understand the benefits provided under the policy.

LHATF decided to receive comments from interested parties, as well as to provide their own comments to Frank Dino for consideration at the March 2000 LHATF meeting. Then they will decide whether to develop an actuarial guideline focused on UL products with secondary guarantees.

Reserving and Non-forfeiture Beyond Age 100
LHATF will consider several issues related to the general company practice of extending insurance coverages beyond age 100 in order to not trigger tax consequences for centenarian policyholders. Issues include reserves and non-forfeiture benefits before and beyond age 100 and the appropriateness of COI charges beyond age 100. LHATF requested that the AAA prepare a study of the issues both before and after age 100.

Equity Indexed Annuity Survey Results
Regulators reviewed the results of a survey performed by Mark Peavy at the NAIC related to company practices with respect to EIA reserving methods. The largest variances in assumptions used by companies relate to the volatility assumption.

Because of the extensive number of charges that LHATF has on its agenda for year 2000, the task force has decided to disband the Innovative Products Working Group and instead work on and complete one or two projects each quarter using the time previously allotted to the Innovative Products Working Group. At the March, 2000 meeting, the Innovative Product time slot will be filled by a special meeting on international insurance issues to be attended by the NAIC (LHATF, International Accounting Standards Working Group and Codification Working Group), FASB and IASC representatives.

General Matters

At the general matters meeting, LHATF considered the following major projects.

Report on Unified Valuation System (UVS)
UVS was discussed generally and most of the focus was on planning for year 2000.

The regulators plan to have a summary of issues/questions related to the numerical examples that were prepared by the Academy by March 2000. The Academy plans to provide a seminar on UVS to regulators and the actuarial profession, tentatively by September 2000. The Academy will focus on the viability analysis and the role of the valuation actuary, reviewing actuary and the regulator in this context. Key issues are balancing confidentiality and effectiveness. Other items to be addressed include consideration of high impact/low frequency occurrences in the UVS framework. Regulators will begin to consider and put together a list of the items they believe should be included in a viability analysis.

AOMR Revisions

LHATF discussed the most recent revisions to the AOMR. Modifications are based on the results of a recent conference call on November 12, 1999. The latest draft AOMR has references to a Section 7 opinion completely deleted. Much of the detailed requirements contained in the current AOMR will be removed, placing more reliance on actuarial judgment in the context of revised actuarial standards of practice. For example, in this framework, specific required language, comments on aggregation, use of AVR/IMR, and required interest scenarios would be deleted from the regulation itself.

The revisions to the AOMR also attempt to address the problem of state of domicile versus state of filing opinions by giving the Commissioner of each state several ways of accepting a state of domicile opinion. It would be up to each state to decide in what context the Commissioner would feel comfortable accepting an opinion where reserves are established according to the minimum standards of a company's state of domicile. The requirements could take various forms in terms of what disclosure regarding reserve methods and disclosure of reserve amounts a Commissioner might require before a state of domicile opinion would be acceptable. The extremes include certain states that may continue to require a state of filing opinion while others may simply accept a state of domicile opinion if they are satisfied with the state of domicile's laws and regulations regarding minimum reserve standards.

It will be up to the regulators to decide whether the revisions by the ASB to ASOPs No. 7 *Performing Cash Flow Testing for Insurers* and No. 22 *Asset Adequacy Analysis* provide the desired guidance to the valuation actuary. ASOP No. 14 *When to do Cash Flow Testing* would be deleted, and its relevant elements are incorporated in the revisions to No. 7 and No. 22.

Two draft revisions of these ASOPs have been exposed by the ASB to LHATF for feedback prior to a wider distribution to Academy members for official exposure (probably in March 2000). Much of the data eliminated from the AOMR will find its way into the ASOPs in one form or another. Given the nature of the AOMR revisions, it is contemplated that Compliance Guideline No. 4 on Section 7 opinions would be eliminated under this new structure.

New Non-forfeiture Law

LHATF discussed a draft non-forfeiture law which incorporates many comments received by Frank Dino over the last several months. The direction is to construct a new law that would be available to be used on a parallel basis with the current SNFL. The new law would provide for innovative product design (flexibility) in return for significant disclosure, responsibility placed on the company for having a plan for determining charges and credits, and certifications by a responsible officer, certifying actuary and a reviewing actuary for compliance with the provisions of the new NF law.

The new law could be available for use on an optional basis on a form-by-form basis for a ten-year "experimental" period. The new draft was exposed by LHATF for consideration and comment.

Reserving for Variable Life & Universal Variable Life Products with Secondary Guarantees

This issue is left over from the original adoption of XXX which specifically excluded variable life products. An actuarial guideline has been drafted with two possible reserve valuation methods. The guideline specifies that basic reserves follow a UL model type calculation with an additional reserve layer equal to the greater of an attained age level reserve (AALR) and a reserve based on a one-third drop GMDB methodology. The guideline specifically interprets the SVL in order to avoid any issues with respect to the limited state adoption of the UL model regulation.

New CSO Mortality Table

LHATF received a report from the SOA regarding progress on the development of a new CSO Mortality Table for valuation. The SOA plans to provide three deliverables: 1) a basic experience table to underlie the next CSO table; 2) a research document on possible methodologies to incorporate individual company experience into valuation; and 3) consideration of a formulaic version of a mortality table to be used for valuation.

The 1990-95 SOA experience will serve as the basis for the experience table. The SOA is in the process of trying to accumulate data from other sources for issue ages above 75 and attained ages above 95 where insurance data is scarce. They expect an initial experience table to be available in March 2000.

ACLI Update on XXX

The ACLI provided a brief update on XXX adoption by the states. At least nine states have adopted XXX to be effective January, 2000. In total, about 39 expect to adopt XXX, many of the states plan to adopt in year 2000, but with a January 1, 2000, effective date. Nine other states have XXX under consideration. Only three states are not presently considering XXX.

Shadow Accounts in UL Products

At the fall 1999 LHATF meeting in Atlanta, regulators discussed shadow fund accounts in UL products. Generally, all regulators concurred that shadow accounts should be reserved using a XXX hump back reserve approach at a minimum by computing an imputed level premium based on the guarantee implicit in the contract. It appears that most states will review policy form, advertising, marketing and illustration material and then decide whether new designs should fall under XXX type reserve requirements. Some states are actually modifying the NAIC XXX model to provide more flexibility in its application in this regard.

* * *

The next LHATF meeting will be held in Chicago on March 10 and 11, 2000.

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RBC Developments Include New C-3 Approach

by Bob Brown

The American Academy of Actuaries Life Risk Based Capital Task Force has presented a recommendation for a revised risk-based capital formula to the NAIC, in response to their request. This recommendation introduces a refinement to the development of the interest rate risk (C-3) component.

The proposed method capitalizes on cash flow models used for Asset Adequacy Analysis, if they exist, by requiring that certain interest sensitive products (generally, annuity products) be evaluated against a set of adverse interest rate scenarios and the results used in place of the current tabular factors. As a way to provide flexibility in the trade off between effort and accuracy, the proposal provides for a set of 50 scenarios, with reasonable calibration, and a more conservative 12 scenario set. The insurance company may choose which set they use.

In addition to the scenario-generated result for tested products and the tabular factors (using the original factors) for untested products, this recommendation has a third component for assets which are callable below the current statutory carrying value.

The task force recommendation is that the sum of the three items described here be compared to the tabular C-3 result determined under the current formula and, at least initially, that the final RBC amount be constrained to the range of .5 times to 2 times the amount determined by using the current formula.

The full text of the Academy's recommendation can be found on-line at: *http://www.actuary.org/1999.htm*

This report was delivered at the October 1999 NAIC meeting and exposed for comment. Two comment letters from the industry were received. They requested that the regulators consider the possibility of allowing highly capitalized companies with modest C-3 exposure to be exempt from having to do scenario testing. These comments were discussed at the December NAIC meeting. The NAIC Working Group asked those who made that suggestion to develop a specific approach for review and consideration and to do so by early February, with a conference call to be scheduled for discussion.

The next steps will be for the regulators to vote on whether to modify the Risk Based Capital calculation as recommended by the Academy, either with or without the exemption from scenario testing for some companies. The Academy recommendation provides for a December 31, 2000, effective date, but that is also up to the NAIC.

Beyond this phase, the Academy was asked to develop a methodology to measure C-3 risk (asset mismatch risk) for mismatches other than interest rate-driven, such as equity indexed products, variable products, and guaranteed index products. That will be the focus of the Academy task force's future work.

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Tradition lives on

Outgoing chairperson Shirley Shao passes on the traditional chairperson's green coat to incoming chairperson Mike McLaughlin at the October 1999 Council meeting. (L - R) Mike Lombardi and Ed Robbins join in the joke.

Segregated Funds Seminar Illuminates Equity Guarantees Risks

by G. Thomas Mitchell

The Segregated Funds Seminar, September 13-14, 1999, in Toronto was a gem. Themes presented were "Long Term Market Returns" with an emphasis on simulation, global perspective, and impact on cost of guarantees; "Investment Returns for Individual Funds"; and "Policyholder Behavior and Policy Features," with a case study presented at the conclusion.

The full title of the seminar was a mouthful: "Symposium on Stochastic Modeling for Variable Annuity/ Segregated Fund Investment Guarantees." It was sponsored by the Canadian Institute of Actuaries, co-sponsored by the Society of Actuaries and The Actuarial Foundation with corporate sponsorships by RGA Financial Products, The Mercer Group and ERC Group.

Preparations for the meeting were extensive and thorough; the meeting itself well run. Kudos are due to Charles Hill and his organizing committee. All the papers were valuable, and most of the presentations were excellent. My apologies that not all can be acknowledged.

More than 200 attended. The breadth and quality of attendees was notable. Canada and the US were well represented, with some European and Asian participation (Japanese experience with equity guarantees has been quite poor recently, of course). The interplay between Canadian and US experience was illuminating. Attendees included life/annuity product actuaries, financial reporting actuaries, consultants and company people, academics, financial engineers, quantitative investment analysts, traders, Canadian bankers, and reinsurers. One gains a broad perspective from such a gathering.

Canadian Perspectives Valuable

A broad scope of products were covered, including Canadian Retirement Savings Programs (RSPs) roughly equivalent to U.S. IRAs, U.S. variable annuities and U.S. and Canadian mutual fund guarantee products. "Segregated Funds" is Canadian for "Separate Accounts."

The Canadian marketplace is very hot as to equity guarantees. Canadian experience with "living benefits" guarantees of equities is ahead of U.S. experience, which is mainly with death benefits. Guaranteed maturity values are common for RSPs and mutual funds.

Rollups at interest and ratchets to account balances are common guaranteed value formats, as well as 75% to 100% return of premium. Maturity guarantees typically rollover every 10 years. A recent development (fast disappearing because of hedging problems) is "voluntary resets" similar to a "shout option." The client can notify the company at any time (or with modest restrictions) to reset the base for his maturity guarantee to the current account balance. The maturity then is deferred to 10 years (plus possibly a fractional policy year) from the date of voluntary reset.

Companies thought this would cost nothing — that deferring the maturity date offsets the increased value promised. This proves to be not so, and the risk is devilish to model and hedge.

Canada is also a source of separate investment experience, partially coupled to the United States, with greater attention to international experience and currency exchange matters (sad ones in recent years).

To Reinsure, Hedge or Retain Risk?

Every carrier wants reasonably priced reinsurance to take them off the hook for guarantee risks. Every reinsurer would love to retrocede or lay the risk off to an investment banker at reasonable cost. Somewhere at the end of the chain someone has to take risk.

There is "sticker shock" at present — disciplined capital market pricing techniques develop costs several-fold higher than expected value results previously in common use. Risk takers, not surprisingly, want to be paid, and paid well, for taking risk.

There are two views on reinsurance — one that the market has dried up; the other that it is available, but high-priced. One approach by reinsurers is to offer coverage with significant exclusions, such as divergences between index and individual fund performance and divergences due to fund switches.

A practical approach is to carve up risk among risk-taking, hedging and reinsurance. In the real world, neither investment banks, direct writers, or reinsurers can take on the whole risk management and risk taking functions.

Reinsurers want clients to share in risks. The direct writer needs to determine their risk tolerance and take some risk. Direct writers are usually vague about their own tolerances.

Inside the Hedging World

RGA Financial Products in Toronto is active in risk management, asset liability work, trading, and hedging. Rishi Kapur, a modeler, and Marc Carpani, a trader, spoke in a practical vein. Hedging is

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dynamic, Greek-based (derivatives of value with respect to key market variables), day-to-day.

Futures trading costs are very small per London Re's Duc Ho. There are some indications options markets are "drying up." Perhaps insurers' new appetites for options are distorting the market and unbalancing it?

Ravi Ravindran, head of RGA Financial outlined the steps in hedging:
1. Identify all risks
2. Quantify possible risks at least crudely with arbitrary scenarios
3. Determine the important risks to hedge
4. Develop probability distributions
5. Price

Expertise needed to hedge correctly:
1. "Exotics" trading
2. Portfolio management
3. Actuarial
4. Quantitative modeling
5. Product structuring, securitization

Some "dirt" on hedging
Hedging using continual rebalancing using the Greeks can fail during market discontinuities.

Rebalancing is not, in practice, continuous. This gives rise to systemic costs due to higher order derivatives not hedged.

Capital cost of reserves is typically not taken into account in quoting hedging costs.

Emerging Product Features

One U.S. company offers a double your money in 10 years maturity value target (instead of guarantee). The payoff is limited to a percent of the funds, instead of guaranteeing the fund value no matter how low it falls.

Ari Lindner of AXA RE shared his studies on U.S. variable annuity guaranteed income benefits (IB). A typical benefit provides that on or after X years, fixed-income annuitization on a prescribed life contingent form will not be less favorable than the premiums accumulated at Y% (rollup rate) applied at guaranteed fixed-income annuitization rates. Typically X is 10 years. Typical guaranteed purchase rates are at 3%. Typically Y% might be in range of 4 to 6%.

He estimates a 20% utilization rate per year by clients when the feature is in the money. Partial withdrawals and methods of adjusting guarantees for partial withdrawals have huge cost effects. For example, if a premium of $100,000 has fallen in value to $80,000 with a $100,000 death benefit and $70,000 is withdrawn, there will be $10,000 of value remaining, and $30,000 death benefit under a dollar for dollar rule, but only $12,500 death benefit under a pro-rata rule. Results are sensitive to base static lapse rates. Dynamically, lapses may vary based on a mix of recent and long term investment experience on the policy (poorer performance, higher lapses). Guarantees could reverse the effect if they come into play, especially as IB becomes exercisable. Bond funds price cheaper than equities for IB, except at a high rollup rate they are more expensive because they are usually in the money.

"Policyholder behavior in general represents systematic risk, poorly understood with poor data, and is not comfortable risk for investment houses..."

Canadian products often are lapse-supported. This is openly acknowledged as both "OK" and a "problem." Note: This is anathema to U.S. state regulators.

Modeling & Computation Advances

Prof. Moshe Milevsky of York University won first prize for an amazing paper giving an analytical solution to the cost of rollup death benefit guarantees, in the case of static policyholder behavior and Gompertz mortality. He concludes on a real world probability basis that the expected value of return of premium or rollup benefits are quite modest versus mortality and expense risk charges.

Ken Seng Tan of Waterloo University won second prize for a good expository paper on "Low Discrepancy Sequences" as an improvement in Monte Carlo sampling efficiency.

Mark Tenney of Mathematical Finance Company described how to develop an economic scenario generator:
1. Develop Interest rate generator
2. Compute bond returns
3. Add equity return features
4. Introduce correlations
5. Build equity like assets

He focused on the problems of "latent variables" in the model that aren't directly observable, and the resulting problem of calibration. Some of these variables may have "reality." Others are mere artifacts of model construction.

Eric Thorlacius of Swiss Re talked about problems in getting an arbitrage free model out of a Monte Carlo "string" model, i.e., many independent scenarios. This compares to binomial or trinomial trees that are easy to make arbitrage free, but explode geometrically in calculations.

Vladimir Ladyzhets of SS&C presented a five-factor Wilkie-like model with three equity funds — EAFE, Small Cap and Emerging Markets.

Policyholder Behavior

Mike Shumrak of Ernst and Young and Vince Darley of the BIOS think tank presented an ingenious "agent-based model" for policyholder behavior. It consists of many "economic agents" (not insurance agents), each with a simple internal model for their decision making. It was impressively calibrated, but is definitely not the simplest approach. This interesting method is soundest when accompanied by ample investment in focus groups, interviews, and microeconomics skills.

Steve Craighead of Nationwide presented some policyholder behavior data. Distribution systems have a major impact on policyholder behavior.

He sees churning by broker/dealers (BDs). There is separation risk — a representative moves on, the BD does not reassign a representative so the BD keeps compensation. Thus no active agent is on the case and communication suffers.

Bank marketing is prone to mismarketing. He also sees fraud by agents who have all reports sent to them and charge clients added fees skimmed off of reports prepared by the agent.

The replacement situation is made worse by companies who subsidize surrender charges on an old policy by giving a bonus on the new policy. He also gave considerable real life data and cluster analysis on fund transfers.

Policyholder behavior in general represents systematic risk, poorly understood with poor data, and is not comfortable risk for investment houses, nor hedgable without new securitization techniques.

Shumrak pointed out we can model the policyholder as savvy or naive with big differences in results.

Mike Siegel of Gen Re presented substantial research on policyholder behavior. He compared options involving policyholder behavior to Capital Markets Pricing Model pricing. They are similar, but insurers assume policyholders don't exercise fully rational exercise behavior. The latest code word for policyholder behavior is "boundedly rational."

The policyholder can cancel the contract, unlike conventional option arrangements in finance; i.e., the options are "installment" or "cancelable." This jacks the price up. If the option becomes far out of money, the policyholder can cancel, and the income stream to finance the option dries up.

Steve Prince of Dion, Dunell presented a nice "mobility model" for lapses and fund switches he constructed. If one starts with base lapse rates, and assumes 1) extra lapses if market has just dropped, or 2) extra lapses if market has just risen, then costs are affected almost the same amount either way. This is because recent performance is not a predictor of future performance.

However, added lapses usually decrease costs simply because there are more lapses overall. Finally, lapses because of poor long-term performance do decrease costs.

Fund Returns — Just as We Suspected

University of Alberta's Professor Jacques Carriere confirmed that both U.S. and Canadian managers' performances average less than the indices, vary widely, are not homogeneous with respect to time, and that good long-term managers are rare.

Grant Paulsen of Rimcon found market indices perform close to the normal distribution. Individual funds themselves are much farther from normal. The outliers are mostly on the downside. Foreign hedging is much chancier than domestic. Global index funds have lower correlations with individual funds than North American domestic funds. Even index funds can under perform.

Duc Ho found correlations among world markets drop with longer time periods. Some interesting comments on international funds focused on parsing risk into currency vs. returns in local currency. Correlations, especially in global markets are unstable — they hold for a while then break suddenly.

Black-Scholes, Log-Normal and the Lamppost

There is an old joke about a drunk in a parking lot at night crawling on his knees looking for car keys beneath a lamppost far from where he lost the keys, "because there's more light under the lamppost."

Log normal models and Black-Sholes derived from it are wonderful in their self-consistency, tractability, and mountainous supplies of theorems and literature. Read on.

Christian-Marc Panneton of L'Industrielle Alliance compared lognormal, Stable Paretian Distribution (SPD) and GARCH methodologies for equity returns. Lognormal doesn't really fit. SPD gives a much better fit, but not a miraculous one. GARCH underestimates hedge costs.

The defective fit of log-normal and Black-Sholes is not news. But what to do about it?

Numerous speakers, mostly hedgers and traders, advocated Black/Sholes as the basis for pricing and hedging modeling. Tweak the model to make it work better, but don't trash it. They all warned against inventing different models, thus working outside the lingua franca. I understand this viewpoint for trading work, but it also makes me think of the lamppost.

Professor Mary Hardy of York University, Ontario, presented very interesting and promising research on a "two-regime" log normal model. Each "regime" works exactly like lognormal. Switches between two states are modeled by a Markov chain process (transition matrix). The regimes are distinguished principally by different volatilities, but also different drifts. "Normal" state has typical drift, calm volatility, and a small chance of flipping to "nervous" state. "Nervous" state has very high volatility, negative drift, and a relatively high chance of flipping out to normal state.

For the S&P 500 Index, she derives monthly factors as follows:

State:	*Normal*	*Nervous*
Drift:	.9%	-1.9%
Volatility:	3.5%	7.2%
Chance of State Change:	3.8%	32.8%

Scott Orr of American RE/ Munich Re presented a nice modification of the Wilkie investment /economic scenarios model. Overall Wilkie models were giving answers very close to log normal. Note that Wilkie is driven by log normal

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processes. SPD, regime switching and other modifications to lognormal mostly tend to increase costs. Traditional autoregression models tend toward lower costs, poorer fits. The worrisome costs and worrisome modeling are in the tails.

Actuarial Profession Shot Itself in Foot?

Professor John Hull, University of Toronto, of interest rate generator fame, gave an address on financial engineering compared to actuarial work. Financial engineers use no-arbitrage, risk-neutral pricing for valuing financial instruments. Actuaries use the "actuarial approach" depending on frequency of events in the "real world." Actuaries set up reserves, but financial engineers use "continuous" rebalancing (hedging) strategies. Real world frequencies are appropriate for reserving and scenario analyses. Our interests are converging, and our skill sets are similar.

The financial engineer points out that financial market risk (excluding risks relating to individual companies) is systemic and non-diversifiable. Hence, there is an unavoidable market price of risk. The financial engineer's thought about insurance risks is that they are diversifiable, hence should have no market price of risk.

Let the poor actuary do his/her present values on them, but the actuary is stupid to apply expected values to financial markets and sloppy to adjust for risk by guesswork. The handicap for insurance actuaries is we work in an incomplete, inefficient market without the disciplines of active marketplace pricing.

As an actuary, I see a profession that has been steeped in the expected value method, using realistic to conservative "real" probabilities. However, risk adjusment has always been a part of our profession. The classic approach by utility theory has never really been put to practical use. Ad-hoc margins used to be the norm.

This is now supplanted by stochastic modeling and risk adjusted option spreads since the 1980s. Risk neutral pricing, particularly using risk-neutral probability measures is new to many of us, unfamiliar technically, and baffling (even anathema) to many.

If we want to create a "Big Tent" for the actuarial profession, we are shooting ourselves in the foot by claiming (or not denying) that "actuarial method" equates to using expected values with real world probabilities, regardless of the application. I've seen this stated poorly too many times in recent articles by actuaries.

For the financial engineer's benefit, we need to educate them that there is systemic risk in insurance risks (societal levels of mortality, for example), greater parameter estimation risk than in financial markets, and at some global level, a limit to diversification (such as effects of global reinsurance capacity). Some risks (for example, hurricanes) exhibit very limited diversification potential.

Practice vs. Theory

Prince pointed out that futures exchanges are counter party for futures transactions. Exchanges have never defaulted thus reducing counter party risk. Others expressed doubt about any counter parties in extreme scenarios.

Various comments were made on the problem of evaluating "bad scenarios." Bad scenarios often have lots of good years in them, says Prince.

The issue of time diversification came up — the value of staggered issue dates, new business, anniversaries, reset dates and maturity dates in reducing costs. Those who had done studies on this indicated it had only modest impact and little impact on reducing the bad tails. Mean reversion models produce greater time diversification benefits than non-reverting models.

There were startling differences of opinion implicit in several talks on the accuracy of hedging. Some refused to give percentile statistics on results of hedging because "the cost is always the same."

Others ran rather realistic distributions of how hedging would work taking into account factors such as basis risk, non-continuous rebalancing, approximate hedges, or inability to hedge all facets. These showed distributions of costs that 1) had a higher mean cost than no hedging, 2) had about the same dispersion in the heart of the distribution, and 3) almost completely eliminated upside and downside tails.

Everyone strives for market based pricing for imbedded options — but there is effectively no market for 20 to 30 year puts. The resulting prices involve extraordinary extrapolations.

Prince stated modeling is no better than its weakest link, and there are many important links, which was soon well illustrated.

In the last session, enormous efforts by panelists in calculating several case studies using their different approaches were presented. Unfortunately, the main lesson learned was it is very tricky to lay out clear instructions to achieve comparability. The panel admitted chaos reigned in the results presented.

Even through the chaos, one easily perceived the further difficulty that every practical problem seems to have 10 to 20 critical parameters. Reasonable ranges of assumptions on any one parameter can easily make first significant digit differences in results.

The agenda and about half the presentations are available on the CIA web site at: www.actuaries.ca/meetings/segfund /ar19990913/sessione.htm.

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Caribbean Seminar Co-Sponsored by Financial Reporting Section

by Michelle Chong Tai-Bell

A seminar on Financial Reporting in the Caribbean in December 1998 — who came up with that great idea? Credit goes to Shirley Shao (then chairperson of the Financial Reporting Section) who might be accused of having an ulterior motive were it not for the fact that she was unable to make the trip to the Caribbean due to conflicts in her schedule. Shirley also initiated the original seminar that was run in Asia earlier in 1998, then followed by one in Argentina.

In response to Shirley's letter offering to put on the seminar, I made contact with her in my capacities as then President of the Caribbean Actuarial Association (CAA), chairperson of the International Section and member of the organizing committee of the 1998 CAA Conference. A few more telephone calls and many e-mails later — the seminar entitled "Facing up to the Risks" became a reality at the Trinidad Hilton hotel on December 2, 1998. The Caribbean seminar, the third in the series, was jointly sponsored by the Financial Reporting Section, the International Section of the Society of Actuaries, and the CAA.

Caribbean Environment

This initiative by the Financial Reporting Section was seen by the CAA as a welcome opportunity to create a forum for discussion by Caribbean professionals about the risks that we face, approaches to quantifying these risks, the role of reserves, capital and surplus in funding for these risks, and the professional responsibility of the actuary. Furthermore, against the backdrop of the turmoil in the Jamaican banking and insurance sectors, the need became obvious for debate among actuarial professionals about what framework needs to be put in place to make for a stronger Caribbean industry and to safeguard the reputation of our profession.

We Caribbean actuaries practice in an environment characterized by volatile economic conditions, increasing competition from outside players, relatively unsophisticated financial markets, out-dated financial regulation, ineffective enforcement, and a typical corporate culture of *laissez faire* governance. It is my belief that this state of affairs calls for us to take up the challenge and be proactive in seeking necessary changes to our systems of risk management and statutory financial reporting.

These changes must recognize the interests of the policyholders, the shareholders, and the responsibilities of the regulators, the actuaries, and the auditors. It is for this reason that we made a special attempt to encourage the attendance of persons within the accounting profession and of our regulators. We felt that exposure of these interest groups to the regulatory environment in North America, particularly the evolution of the various approaches to measuring solvency and the role of the actuary, would be invaluable in our efforts to influence the change process.

Having briefed Shirley about some of our objectives, she put together a fine slate of speakers in John Castellino, Jeffrey Harper, Carl Harris, Richard Labelle, Phillip Whittaker and Bob Wilcox.

The one-day seminar was organized as the kickoff session of the Caribbean Actuarial Association's 1998 conference.

Risks Faced by Insurers

Jeff Harper began by giving an excellent review of the C-1 to C-4 risks faced by insurers. He also gave a brief overview of how cash flow testing is used to measure and analyze some of these risks. He outlined how the U.S. economic and insurance environments changed over the last three decades and how the regulators, industry, and actuarial profession dealt with these changes. Of particular in-terest to me was the discussion about the evolution of required Actuarial Opinions and the role of Actuarial Standards of Practice and Practice Notes in the effective operation of such a system based on actuarial judgement.

John Castellino, drawing on his decades of experience with the primary reinsurer in the market, then gave an overview of the Caribbean environment. His provocative presentation discussed the key risk exposures of insurers in the Caribbean and his view of the inadequacies of the current management and regulatory processes to identify the risks and manage them in a prudent manner. He pointed to the fact that like in North America, not withstanding the youthful age profile of the Caribbean, Caribbean insurers have changed their main role from a provider of insurance protection to that of a financial intermediary. Equity linked and interest sensitive products are the norm. In this new role, the C-1 and C-3 risks predominate particularly given that:

- Many Caribbean insurers have substantial holdings of real estate and equities in their general account.
- Capital markets are small with little opportunity for diversification.
- Local economies are driven by one or more major industries; e.g., tourism in Barbados, tourism and bauxite in Jamaica, and petrochemicals in Trinidad. This creates a highly volatile market environment for investments.
- Inadequate supply of sound investments that not only can provide attractive returns to compete effectively with other financial institutions but also can

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provide necessary liquidity if policyholders rush to cash out.
- Available investments in real estate, mortgages and unquoted private companies tend to be illiquid.
- Many insurers see themselves in the role of investment management companies setting up holding companies or other similar structures that acquire major stakes in many sectors of the economy. The life insurance company that forms part of such conglomerates is often used as a major funding vehicle for these acquisitions. This often results in some life insurers having a significant portion of their assets in a single investment holding in a company mainly to exercise control over that company.
- Some major insurers are using funds generated under interest sensitive products with attractive rates and liberal cashing-out provisions, to finance acquisitions or take large equity positions in companies — as well as make long-term investments in real estate.
- Some major insurers have taken on foreign currency loans, as these borrowings have been at interest rates much lower than is available in the domestic market. While these funds are typically intended to finance investments in projects that generate foreign currency earnings, there is the danger these earnings will not meet the level necessary to service the borrowings.

Castellino was of the view that liquidity, or lack of it, is probably the biggest future threat facing Caribbean insurers. He questioned whether Caribbean regulators have adequate resources and access to proper advice or skill sets necessary to cope with the diverse business interests and complex corporate structures of Caribbean insurers. He also advised that the fiduciary role and responsibilities of the board of directors, external auditors and actuary of the company needs to be defined under law and their powers enhanced to ensure that the proper framework exists for the prudent management of insurance companies. In addition, the regulators need to ensure that acceptable investment guidelines exist for every company and monitor them for compliance.

Valuation Systems

The various valuation systems were discussed next. Richard Labelle gave an overview of the three elements of the Canadian system: the Policy Premium Reserve (PPM) method, Minimum Continuing Capital and Surplus Requirements (MCCSR) and Dynamic Capital Adequacy Testing.

Bob Wilcox reviewed the U.S. valuation system by describing the role of the various elements: Formula Reserves, Risk Based Capital and the Appointed Actuary. He also gave us an insight into the possible future direction of the NAIC toward expanding the role of the Appointed Actuary.

John Castellino commented on the valuation systems in use in the Caribbean. The point was made that in the absence of regulatory guidance, a diversity of valuation approaches are in use. Most companies either use a modified net premium valuation method or have adopted the Canadian Policy Premium Method for valuing their liabilities. Caribbean actuaries have considerable freedom in the choice of valuation methods and assumptions used. He argued the point that this freedom available to life insurers in their financial reporting is ultimately not in the best interest of the policyholders as there is no common benchmark for computing policy liabilities or solvency standards that companies have to meet. Given that regulatory supervision of companies may not be timely or sufficiently detailed to detect weak companies, the risk of insolvencies could be high.

"Caribbean actuaries have considerable freedom in the choice of valuation methods and assumptions used....Given that regulatory supervision of companies may not be timely or sufficiently detailed to detect weak companies, the risk of insolvencies could be high."

Urgent Need for Standards

In his opinion, there is a need to organize an industry body in the Caribbean that can access the best minds to tackle the problems, including the development of common standards for valuing policy liabilities that will reflect the unique risks and conditions encountered in the region. These standards should also incorporate:
- Capital and surplus requirements
- Method of valuation of assets
- Cash flow testing of reserves
- Dynamic solvency testing

He echoed the thinking of the CAA that the establishment of standards is urgent and pointed to the need for coordination and consensus between the actuaries, accountants and regulators.

Capital and Solvency

The topic of capital and solvency was handled by Jeff Harper, Richard Labelle and Phillip Whittaker. Following from his earlier presentation on the risks facing insurance companies, Jeff Harper discussed the following consequences if these risks are not recognized and adequately measured:
- Insurance company performance is depressed.
- Product performance is substandard.

- Industry reputation is damaged.
- Regulatory intervention can occur — after the cows are loose.
- Management, employees, investors and especially policyholders are disenchanted and damaged.

He cited the experiences of Mutual Benefit Life, Guarantee Security Life, Executive Life, First Capital Corporation, Summit Life, and Andrew Jackson Life.

Richard Labelle discussed the importance of having risk-based capital requirements (at minimum, internally, but hopefully externally, too).

Jeff and Richard's warnings could be said to be too late in the case of the Jamaican industry as described by Phillip Whittaker. At the time of the seminar, the Jamaican insurance and banking sectors were suffering the ultimate consequence of poor risk management practices in an environment of high inflation and tight monetary policy. Virtually all of the indigenous insurance companies and banks became insolvent due in large part to asset/liability mismatch. In January 1997, the government established the Financial Sector Adjustment Company (FINSAC) to rehabilitate the financial sector. As of October 1999, the cost of the bailout has been US$2.3 billion, more than 50% of GDP.

Standard Valuation Law

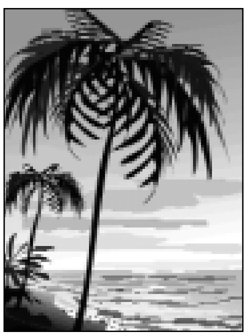
Carl Harris then followed with an excellent overview of the Actuarial Opinion and Memorandum Regulation in the context of the Standard Valuation Law applicable in the U.S. Of particular relevance in the context of the Caribbean situation, was the use of cash flow testing in determining asset adequacy and the importance of Actuarial Standards of Practice to the effective operation of the Appointed Actuary concept embodied by this regulation.

Professionalism

The final presenter, Bob Wilcox, did a tremendous job of involving the audience through his use of case studies to illustrate the critical role of the actuary in serving the public interest. The issue of the non-applicability of the Actuarial Standards of Practice to SOA members practicing outside of the United States who are not members of the American Academy of Actuaries was discussed. Many within the audience saw a possible role for the CAA in standard setting and in the promotion of professionalism within the Caribbean. There was lively discussion about the topics of discipline, peer review, mentoring and standard setting.

The Progress in the Caribbean

The issues of risk and risk management, for the most part, know no geographic boundaries. The risks faced are no less significant in the Caribbean; the very fact of our small size magnifies some of the risks. The seminar successfully highlighted the fact that a lot of work needs to be done within the Caribbean to ensure that a system of proper checks and balances is put in place to protect the public interest.



At the time of this writing, Jamaica, having learned the hard way, is the furthest along toward implementing a statutory valuation and minimum capital and surplus standard to be modeled on the Canadian system.

The council of the Caribbean Actuarial Association has developed an action plan to address the issues of professionalism and standard setting in the Caribbean context.

Over the past few years, we have had the privilege of hosting the presidents of the Society, the U.K. Institute and Scottish Faculty at our annual conferences. I believe that in some measure, the seminar served to drive home to the international leadership the true nature of the issues facing their international membership that impact actuarial practice and the reputation of the global profession. There is tremendous goodwill between the CAA and our "parent" organizations, who have been equally generous in their offers of assistance in the task at hand.

At our recent 1999 conference in Jamaica, in the light of the interest generated by the Financial Reporting seminar on the topic, we ran two Professionalism seminars co-sponsored with the SOA, Institute and Faculty. Speakers included Chris Daykin, chairman of the International Actuarial Association's Professionalism Committee; Paul Thornton, president of the U.K. Institute of Actuaries; Frazer Low, president of the Scottish Faculty of Actuaries; and Jack Turnquist, Chairman of the Society of Actuaries' Professionalism Committee and joint chair of the Committee on the Code of Professional Conduct.

These subsequent events are some of the spin-off benefits of the Financial Reporting seminar. I am hopeful that the insights gained and the advice given will influence positive action by the regulators and by the profession within the Caribbean. Many thanks to John Castellino, Jeffrey Harper, Carl Harris, Richard Labelle, Phillip Whittaker and Bob Wilcox, to the International Section, to the Financial Reporting Section, and in particular Shirley Shao, without whom the seminar would not have happened.

***Michelle Chong Tai-Bell, FSA, is executive director and corporate actuary at Maritime Life Ltd. in Trinidad. She can be reached at* mctb@carib-link.net.**

Section Chairs Seminar with Mexican Actuarial Association

by Ed Robbins

Note from Editor: In our last issue we mentioned that the seminar, then just held, was a great success. In this article, the coordinator of the seminar, Ed Robbins, gives us an overview of what transpired at the meeting.

One of the most satisfying aspects of my three-year tour of duty at the Financial Section Reporting Council has been the running of actuarial seminars in Latin America. The first was a two-day seminar in Buenos Aires, Argentina, in August, l998, discussing recent North American actuarial financial reporting developments. It was a great success, not only in its content and audience participation, but in terms of the friends we made. As members of the same profession, we have everything to gain from contacts such as these.

As a result, we decided to push our luck and put on a second seminar, in Mexico City, the following year. As is true for Buenos Aires, many U.S. life insurers are now represented in Mexico, and it is extremely beneficial to strengthen our professional ties as we approach a more global economy.

The Mexico City seminar was held October 5, l999. It was a one-day seminar, jointly chaired by the Society of Actuaries Financial Reporting Section and the Mexican Actuarial Association. The turnout greatly exceeded expectations, with more than 170 attendees. Mexico was far easier to coordinate than Buenos Aires, being geographically closer, and given that the great preponderance of the potential audience lived and worked in and around Mexico City. For me personally, it was something of a homecoming, since I had traveled frequently to Mexico City years ago and already had a coterie of actuarial friends and acquaintances.

Pictured here are the Council members of the Financial Reporting Section Seminar held in Mexico City last October.

The faculty consisted of six members of the Society of Actuaries Financial Reporting Section. We had decided to speak on financial reporting and appraisal issues that we felt might be of the widest possible interest to the audience.

I led off with a brief message from the Society of Actuaries. I spoke about the vision of the Society and where the Board of Governors sees the profession heading over the next decade. I covered the new examination syllabus and the “big tent” initiative. Finally, I invited Mexican and U.S. actuaries to work more closely together in the future.

Edward Robbins speaks of the SOA’s vision and where the Board of Governors see the future of the actuarial profession.

Roger Smith discussed recent developments in technology and modeling. He presented some of the work that was presented to the UVS group for term insurance. This presentation contrasted expected value models to Monte Carlo models. Later, he described the hardware and software that US actuaries use in their work.

Jim Toole spoke on cash flow testing, its uses, and the fundamental principles underlying the methodology. He emphasized the theoretical and pragmatic approaches to development of a cash flow testing environment in a company. He further discussed the uses of this tool to senior management in asset-liability management and risk analysis.

Carl Harris continued the discussion of cash flow testing, emphasizing the U.S. regulatory environment. He covered the required scenarios to be run and the degree of rigor required in the modeling and the assumptions.

John Nigh spoke about the practices that companies have utilized in selecting the best acquisition and/or joint venture candidates. He also covered the mergers and acquisition process from establishing a strategy to how to enable a mergers and acquisition team. He described the approach to identify candidates and solicit indications of interest, followed by a discussion of negotiations, definitive purchase agreement issues, and the due diligence process. Finally he discussed post-integration planning and the steps that should be taken to fully implement the post-acquisition mergers and acquisition strategy.

Jim Bridgeman was the final speaker. He discussed the elusive concepts of target surplus and capital allocation. While recognizing the fact that modeling and statistical probability were an essential part of the process of capital allocation and establishment of surplus targets, he brought up the interesting fact that the major catastrophes that have befallen companies in modern times have come either from events (often internally conditioned) not typically modeled at the time or from discontinuities not likely to have been captured in continuous models with reasonable standard deviations. Thus, the process necessarily involves more than mathematical modeling.

Our hostess, Sofia Romano, current president of the Mexican Actuarial Association, attended to every detail with great efficiency, including simultaneous translation facilities and a bountiful dinner for the faculty following the seminar, together with the officers of the Mexican Association. After years of being away from Mexico City, it was wonderful returning to the warm hospitality of our colleagues south of the border.

***Ed Robbins is senior actuary at Zurich-Kemper Life Insurance Companies, in Long Grove, IL. He can be reached at* edward_robbins@zurichkemper.com.**

Did You Know...

... that the Financial Reporting Section Has Its Own Web Page?

That's right — now you can reach the Financial Reporting Section's own web page at *http://www.soa.org/sections/finrep.html.* The page is still in its early days of development, but currently you can access prior copies of the Section newsletter dating back to March 1997. Eventually all past issues of *The Financial Reporter* will be available. As new issues are published, they will be added.

In addition, a form for non-members to use to subscribe to the newsletter is available.

Also you will find a listing of current officers and Council members of the Financial Reporting Section.

We are always looking for suggestions for information that can be added to improve the value of the web page to our members. If you have any ideas, please contact Larry Gorski at the Society office by phone: (217) 782-1794 or by email: Larry_Gorski@ins.state.il.us.

Spring 2000 Meeting - Sessions Preview

The agenda for the Spring Meeting in San Diego is set. The following is a preview of the sessions that will be offered. A lot of the current hot topics that actuaries are being faced with are on the list to be presented and discussed. You won't want to miss out, so sign up now. You can print a registration card off the SOA Web site in the meetings/ seminars section.

Financial Reporting After Demutualization

The emphasis is on financial reporting changes after a company demutualizes. GAAP reporting becomes more important, and investment analysts become an important new constituency, using different measures than mutual companies have used. In this session, actuaries who are going through this process share experiences and discuss how to adapt traditional financial measures and introduce new metrics for internal and external audiences.

Offshore Reinsurance

This session focuses on the advantages and practical applications of offshore reinsurance. Types of reinsurance available will be discussed, as well as a brief history of the development of the offshore market. The presenters will outline the tax and regulatory advantages of offshore reinsurance, including regulatory considerations. Other topics planned include the number of reinsurers and size of the market, risks that offshore reinsurance can best address, financial reinsurance arrangements, the impact of Regulation XXX on demand and price, and details on the use of letters of credit.

The Risk-Based Capital C-3 (Interest Rate) Project

The National Association of Insurance Commissioners (NAIC) Life Risk-Based Capital (RBC) Working Group has recommended that the C-3 (interest rate risk) component of the risk-based capital formula be changed from a formula based on reserves, to one based on stochastic modeling of the interest sensitive assets and liabilities. Changes will have a significant impact on the work of the valuation actuary and may be effective with the 2000 annual statement filing.

Panelists will review the ideas underlying the proposal, discuss issues addressed during the development of this proposal, detail the new calculation and provide examples, discuss practical issues, and outline future steps in the process, including enlarging the scope of the C-3 project to risks other than interest rate related.

Measuring Returns on a Risk Adjusted Basis

This panel discussion will identify current methods of measuring risk and how reported profitability compares with and can be used to measure risk-adjusted performance.

Securitization of Life Insurance Risk

Securitization has become a popular method for improving returns, cleaning up balance sheets, and managing risk. While asset side securitization has been a frequent practice, there has been a growing interest in liability side securitization. This session focuses on securitization techniques insurance companies may employ to achieve financial objectives.

SFAS 133 — Implementation Issues

SFAS 133 addresses how derivatives should be accounted for under GAAP. The techniques involved in this accounting standard have raised many issues for life insurance companies, including issues of interest to actuaries. Further, this accounting standard is felt to provide some insights on how certain embedded options within life insurance contracts may be accounted for under GAAP in the future.

As such, this session will focus on the practical implementation issues for SFAS 133. Specifically, determining the fair value of liabilities, what assumptions are being used, the corresponding valuation techniques and getting auditor sign-offs will all be given high priority. On the asset side, the issues will evolve around pursuing hedging treatment and determining the suitability of hedges.

Tax Reserves For Non-Traditional Products

The introduction of new products by life insurance companies has resulted in some uncertainty regarding the appropriate reserving for these liabilities under the IRC. This workshop discusses tax reserve calculations for new or unusual products.

Efficient Valuation Processes

Many life insurance companies have come under increased internal and external pressure to produce more timely and

insightful performance measures. Because of the significant role that the actuary plays in valuing critical elements of the financial statements, the actuary has been challenged to produce results that meet all appropriate regulatory and professional standards.

Included in the discussions will be the different types of process flows for valuation, the use of data warehouses and other systems to expedite the valuation process, and the advantages and disadvantages of business units versus functional organizations, just to name a few.

Regulatory Update on XXX

Regulation XXX, adopted by the National Association of Insurance Commissioners (NAIC) in 1995, has effectively been in force in only one state through 1998. During 1998, an ad hoc industry group presented a revised version of XXX with the goal of gaining widespread adoption. The NAIC adopted the revised regulation and several states planned on adopting the revised regulation with an effective date of January 1, 2000. This session will summarize the activity by states to adopt and implement the revised regulation, identify and analyze issues that arose during the state adoption and implementation process, discuss product designs that may have arisen in response to the revised Regulation XXX, and discuss issues related to the so-called "X factor" concept that is part of Regulation XXX.

ZZZ and ZZZZ Update

This session discusses recent developments within the American Academy of Actuaries and the National Association of Insurance Commissioners with regard to reserving requirements for Equity Indexed Annuities and Life Insurance. Draft Guideline ZZZ (now Actuarial Guideline 35) covers Equity Indexed Annuities and has now been in force for over a year. ZZZZ covers Equity Indexed Life Insurance, but has not yet been adopted.

Pain, But What Gain? State Variation Under Codification

The codification of statutory accounting is intended to establish a consistent set of statutory accounting rules across all jurisdictions. While significant progress has been made under this effort, achieving the initial objective has been challenging. This session highlights current disparities across jurisdictions under codification, contrasts these differences to differences that exist under current statutory accounting, provides background and insights on the reasons for these differences, discusses any resulting administrative challenges, and reflects upon the state regulation of insurance.

Fair Valuation of Insurance Liabilities — Implications for Economic Performance Measurement & Strategic Decision Making

This session uses a case study approach to demonstrate the critical link between strategic decisions and the appropriate valuation of liabilities. Performance measures based on current accounting practices are compared with measures based on fair liability valuation, and implications on actual decisions are analyzed. Examples explain the moving pieces of liability valuation, including such items as policyholder options, cost of capital and leverage, required surplus and tax position. Panelists build on a paper by Luke N. Girard that combines in one framework the traditional actuarial appraisal method (AAM) and option pricing method (OPM).

GAAP — Current Issues

The panelists discuss recent GAAP developments and practical problems in implementing and maintaining GAAP systems under various FAS accounting models. Panelists cover recent GAAP pronouncements, AICPA Insurance Companies Committee developments, DAC amortization issues, accounting for derivatives and equity-indexed products, international developments, and modeling and approximations.

The "old and new" Financial Reporting Section Council members sharing Section responsibilities one last time — at the October Council Section meeting.

Standing left to right - Barry Shemin, Steve Preston, Larry Gorski, Jim Greaton, Mike Eckman.

Sitting left to right - Mike Lombardi, Ed Robbins (1998-1999 treasurer), Shirley Shao (1998-1999 chairperson) and Mike McLaughlin (1999-2000 chairperson).

A Message from the President-Elect...Think *NAAJ*

by Rob Brown

As the 1999-2000 president-elect, I recently chaired my first Council of Section Chairpersons. Even before this meeting, my impression of the Sections as the SOA leadership's main connection to the grassroots of this organization was that your contributions are vital to advancing the profession. And, I came away from the meeting even more impressed with the heavy lifting the Sections do. Your hand on the pulse of your practice area assures solid continuing education content for our meetings. Your focused publications and sponsorship of relevant research and other SOA projects are hitting the mark for our members.

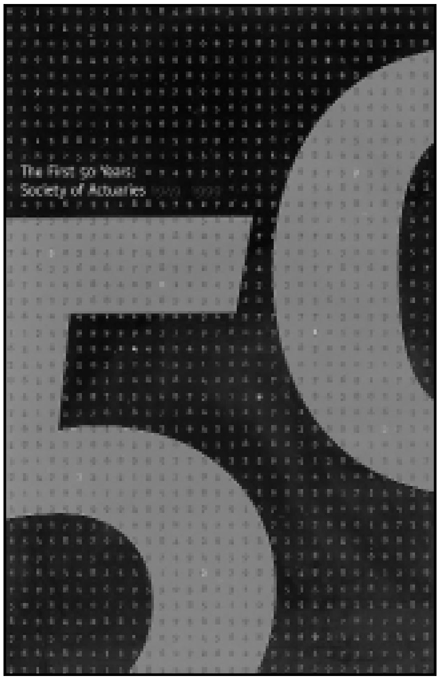
I am especially impressed with your publications. I receive — and read — copies of all the Section newsletters, plus the commemorative monographs produced by the Sections for the 50th Anniversary. What a volume of work, pertinent to so many practicing actuaries! My immediate thought was that much of this material is worthy of going to review for the *North American Actuarial Journal (NAAJ)*.

WHY THE *NAAJ?*

The *NAAJ* is the premier publication of the Society of Actuaries and its only refereed journal. Two myths about the *NAAJ* are 1) that it is only seeking scientific research done by Ph.D.s, and 2) that if an article has already appeared in another publication it can't be published in the *NAAJ*. In fact, from the beginning, the *NAAJ* has hoped to have a mix of scholarly, scientific papers, articles practical for today's practicing actuary, and wider topics that would appeal to nonactuarial readers. The "Guidelines to Authors" in the *NAAJ* states that "In general, we are looking to publish papers in the *NAAJ* that provide a springboard for the further development of education, research or improved practice." Much of what I see in the Section newsletters certainly meets that criterion, and I believe would have a good chance of being accepted by the *NAAJ*. The only truth to the second myth is that you cannot submit an article that has appeared in another refereed journal or that is copyrighted by another organization. Articles in other SOA publications are certainly eligible.

Many practicing actuaries today have limited time to write articles and may think the *NAAJ* process is too daunting. But, I've been through the process, and it is relatively painless. Why not look through what you've written for Section newsletters or *The Actuary* and consider submitting your best work to the *NAAJ?* You can find guidelines on the SOA Web site under "Publications" or you can request them from Sheree Baker at 847/706-3565.

Still reluctant? Give me a call at 519/888-4567, ext. 5503, or e-mail me at *rlbrown@math.uwaterloo.ca* and we'll talk. Let the profession share your valuable insights.



Own the past

The First 50 Years: Society of Actuaries 1949-1999 tells the intriguing and human story of the far-sighted professionals who joined to form what would become the largest actuarial organization in the world. Against the backdrop of a half-century of social, economic, and cultural change, archival material and rare photographs show the evolution of the organization into the worldwide and influential body it is today. And, interviews with 26 past presidents of the SOA paint a vivid picture of the development of a professional society.

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