

RECORD OF SOCIETY OF ACTUARIES 1984 VOL. 10 NO. 2

FINANCIAL REPORTING FOR NEW GENERATION LIFE AND ANNUITY PRODUCTS

Moderator: WILLIAM J. SCHREINER. Panelists: JOHN W. BRUMBACH, DOUGLAS DOLL, THOMAS J. LEARY. Recorder: CANDE OLSEN

This session, developed by the Life Insurance Company Financial Reporting Section, will examine financial reporting for new generation life and annuity products, such as universal life and flexible premium annuities. Topics include:

1. Statutory reporting
2. GAAP reporting
3. Management reporting
4. Accounting treatment of rollovers and replacements

MR. THOMAS J. LEARY: A new requirement for actuaries appeared in the NAIC Statutory Statement blank beginning in 1975. The requirement and illustrative language for an actuarial opinion was outlined in instruction 10 to the statement and had been adopted by the NAIC in June of 1975. Later, the American Academy of Actuaries Committee on Life Insurance Financial Reporting Principles (The Academy Committee), which had worked with the NAIC in developing the opinion requirement, issued financial reporting Recommendation 7 to provide guidance for the actuary in preparing this opinion relative to reserves and other actuarial items in the statement. In this presentation I will discuss recent developments, current activity, and future direction relative to this actuarial opinion.

As some background, note that in specifying reserves and other actuarial items, the opinion clearly addresses the liability side of the balance sheet. There was considerable discussion among actuaries when this opinion was being developed as to whether or not the actuary must consider the asset side of the balance sheet in order to make the statement that reserves make "good and sufficient" provision for the future contractual obligations of the company. This language is a part of the current opinion statement. While there was not unanimous agreement, it was generally viewed as an opinion on the nominal value placed on the liabilities. That opinion language that was developed in 1975 remains unchanged in the instructions to the statutory statement to this day.

Since 1975 there have been drastic changes in economic stability, accompanied by higher interest rates than most of us imagined possible at that time. The changes included rapidly increasing withdrawal rates, decreased market values of assets, and disintermediation. As a part of this new world, there has been increased use of flexible products by life insurance companies. These products separately identify interest credits and charges for various risks and expenses. As a result, actuaries and

company managements became much more interested in cash flow statements relating investment income and the maturity of the company's obligations under its contracts. Those actuaries who had always believed that a statement relative to reserves being "good and sufficient" could not be made without considering the assets underlying those reserves were again heard and their ranks were increasing. The Society of Actuaries' C-3 Risk Committee became increasingly active, and the role of the valuation actuary has been changing.

During the past two years, the Academy Committee began to review its Recommendation 7 with an eye towards clarifying that the actuary must consider the assets in support of reserves in rendering an opinion about sufficiency of those reserves. The Academy Committee did not believe it should be proactive in suggesting such a change to the NAIC or to the industry. The pressures were mounting however, both inside and outside the Committee, to develop modifications which would be ready when needed.

During 1982 and 1983, there were two major events which had the effect of side-tracking the Academy Committee from its direct review of Recommendation 7, but at the same time advancing its effort. In 1982 a circular letter from New York allowed, provided an actuarial opinion is included, that interest rates used to value guaranteed investment contracts may exceed maximum statutory rates otherwise applicable. This was an early glimpse of reliance on actuarial judgment to add flexibility to valuation laws.

In 1983 the NAIC exposed a proposed regulation for universal life insurance. As a part of that NAIC model regulation an actuarial opinion is required with respect to indexed Universal Life insurance. Even though the regulation generally applies to all universal life contracts the actuarial opinion that is required is only concerned with indexed universal life. The Academy Committee spent a good deal of its time in 1983 working with the NAIC Industry Advisory Committee, chaired by Jim Jackson, of Transamerica Occidental (The Jackson Committee) and the model regulation for Universal Life insurance was adopted by the NAIC in December 1983. The Academy Committee has developed and is in the process of exposing a new financial reporting Recommendation No. 11 and interpretations relating to the actuarial opinion required by that regulation. This work has taken the Academy Committee off its main course of revising Recommendation 7 relative to the general actuarial opinion, but gave it some valuable insight into the needs and approaches which could then be applied to that project.

While this is not a session on universal life insurance or the Draft Model Regulation, per se, examining the opinion required in the universal life guideline offers valuable insight and bridges the gap between the background of Recommendation 7 and the current activities of the Academy Committee and others. As such, it also provides a view of what might come in the future for other products. Therefore, I will spend some time on that regulation and the actuary's opinion which is part of it.

FINANCIAL REPORTING FOR NEW GENERATION
LIFE AND ANNUITY PRODUCTS

881

First, let's look at the initial filing requirements contained in Article X of the regulation. These requirements were worked out in part by the Academy Committee and other actuaries to provide information which the actuary would need in forming his opinion. These initial filing requirements are to be submitted in connection with any filing of interest-indexed universal life policies. As a filing requirement, the information is more likely to be available in suitable form for the actuary's use. Generally, these initial filing requirements include a description of how interest credits are determined and the insurer's investment policy. The regulation also requires initial filing of the following descriptions: (A) the method contemplated to determine interest credits following the expiration of the index period, (B) any guarantee above or in lieu of the index, and (C) any maximum premium limitations and their conditions.

A significant disclosure to us is a filing of the insurer's investment policy. This includes a description of how the insurer addressed certain risks, such as (A) reinvestment risks, (B) the risks of capital loss on cash outflows, (C) the risks that appropriate investments may not be available in sufficient quantities in the future, and (D) the risk that the indexed rate may fall below minimum guaranteed rates. Also disclosed in this initial filing of the investment policy are the amount and type of assets currently held and expected to be acquired in the future for interest-indexed policies.

There are two additional annual filing requirements once the initial filing is accomplished. These are the statement of actuarial opinion itself and a statement of the amount and type of assets currently held by the insurer with respect to its interest-indexed policies. A third additional filing is required prior to implementation of any material change in the insurer's investment strategy or method of determining interest credits.

As an illustration of the thinking behind the requirement for an opinion and a possible view of the future, let me read the note following this section of the guideline. The note and the guideline itself, of course, are worded in terms of interest-indexed products but could be stated in much the same way for all products. The note reads as follows:

(NOTE: Interest-indexed products present unique aspects which, due to the unknown future values of the index, are not precisely addressed by current valuation laws. The drafters have considered and rejected approaches to valuation which would require the setting of arbitrary reserves and/or the arbitrary dedication of specific amounts of surplus as being neither logical nor workable. In requiring the filing and evaluation of the above items, together with an annual actuarial opinion, the drafters have attempted to preserve the basic principle of the valuation laws, which is to maintain the ability of the insurer to meet its future contractual obligations.)

The implications of this language are clear. The role of the actuary is changing. His opinion, based on his professional analysis is being substituted for the setting by law of arbitrary reserves and/or the arbitrary dedication of specific amounts of surplus. The further implication of this is that the actuary clearly must do something more than render an opinion relative to a nominal value for reserves entered on the liability side of the balance sheet. It is with this knowledge that the Academy Committee believes it extremely important to review the current Recommendation 7 in preparation for the expanded responsibility.

Let's take a quick look at the illustrative opinion itself which is contained in the guideline. It should be noted that it is illustrative. The actuary can modify the language as he deems necessary in the particular situation. The opinion contains the normal expected scope statement relative to policy identification and what was examined. The portion of this opinion which is not so normal to the actuary is that, as a part of the scope, the actuary has examined the characteristics of the assets and the investment policy adopted by the insurer as they affect future insurance and investment cash flows.

The statement of actuarial opinion then continues on to indicate that anticipated insurance and investment cash flows make good and sufficient provision for the contractual obligations of the insurer. A reliance statement is included to show that the actuary has relied on the investment policy of the insurer and if the actuary chooses, he may indicate reliance on the projected investment cash flows provided by the chief investment officer.

This presentation is meant to make you aware of these developments and is not a "How to" session. However, just a note in passing, one difficulty to actuaries working on the development of these universal life requirements was that it was product specific, and does not apply to the entire company. This requires a segregation of assets and resulted in some aborted attempts to write the opinion in terms of either the reserves, or the assets, relative to the indexed products; hence, the final statement relative to cash flows. On the other hand, since this opinion is product specific, and, therefore, supplementary to the opinion already contained in the statutory statement relative to the entire company, dealing with the cash flows only was a concept more easily accepted. The sufficiency of the total reserves is handled elsewhere. In developing an actuarial opinion which considers the adequacy of cash flows for the entire company, it would be necessary to have, in effect, a two-part opinion. One part would deal with the adequacy of cash flows just as this opinion does, a second part would still need to deal with the adequacy of total reserves. This is the type of issue the Academy Committee is currently grappling with.

The final step in the universal life opinion is for the Academy Committee to develop, as promised, some guidance in the form of a new recommendation for the practicing actuary. This new Recommendation (No. 11) and associated interpretations are currently being readied for exposure to Academy Membership.

While we don't have time to go into the recommendation in any detail, I might say it is somewhat more specific than Recommendation 7, particularly the interpretations. It suggests specific characteristics of invested assets which should be considered by the actuary or investment officer in projecting investment cash flows and gives similar examples of contractual provisions and assumptions which should be considered by the actuary. For example, the actuary must indicate that state requirements are being met. The actuary, as I said before, may indicate reliance on certain projections provided by an investment officer. If there are changes in assumptions or methods from one year to the next, that should also be noted. In projecting insurance cash flows, it gives fairly specific guidance. It points out that investment cash flows are projected based on both current assets and from assets to be acquired after the valuation date, including the possibility of borrowing money. The interpretations make clear that the paths of future interest rates used in the projections are extremely important assumptions. While specific quantification of interest rate variations are not included, several possible types of variations are suggested. It is also made clear that one path is not sufficient, and that simple extrapolations are not sufficient. It does leave to the judgment of the actuary the ultimate choice of alternative paths of interest rates which he feels are necessary to form the opinion.

With that background on a requirement already in place, let's look at current and future activity. As stated, a new Recommendation 11 is being exposed relative to indexed universal life. The NAIC's technical advisory group, and others, have made it clear they believe the current statutory statement of actuarial opinion should be extended to include reference to the adequacy of a life insurance company's future cash flows to meet the anticipated cash requirements under its policies. However, as I said earlier, it is not clear to all actuaries whether the actuary's responsibility presently includes any consideration of the degree of matching of assets and liabilities. Many actuaries now believe that financial reporting Recommendation 7 should be formally changed to recognize increased professional responsibility in evaluating a company's exposure to the risk of loss from changes in interest rates.

In light of the NAIC activity, the Committee is now considering the pros and cons of expanding the current Recommendation 7, and its supporting interpretations, to include specific reference to the adequacy of a company's future cash flows as compared to a specific product cash flows. As part of this consideration, the committee has established a task force to:

1. Communicate to the appropriate NAIC entity our desire to participate in any change in the current statement of actuarial opinion as prescribed by the NAIC.
2. Develop an extended Recommendation 7, and supporting interpretations, for review by the Academy Committee and, ultimately, the entire Academy Membership.

3. Communicate this direction, and our expected future plans, to as broad a group as possible, so others may consider what supporting or additional steps they may wish to take. This includes the Academy Membership, the Society of Actuaries, LOMA, ACLI, etc.
4. Coordinate with the Society of Actuaries Financial Reporting Section and Program Committee to encourage broad discussion of this issue at the 1984 SOA meetings. The primary objective is to gain a sense of direction supported by the broad membership and the issues that concern them.

Any individual actuaries who have comments on the general direction of the Academy Committee are encouraged to write to the Academy Committee on Life Insurance Financial Reporting Principles chaired by Virgil Wagner, and we will certainly take into account any of the comments you might have.

MR. DOUGLAS DOLL: Last December, the NAIC adopted a universal life (UL) model regulation. Part of that regulation is a definition of CRVM reserves for UL, which was very helpful for two situations. First, many companies wanting to take an 818(c) adjustment on UL felt that they had a better chance of getting it past the IRS if they had an "official" preliminary term method. Second, companies with back-end loaded products wanted additional justification for holding reserves smaller than the fund value to ease the surplus strain.

The definition of CRVM reserves was developed over a period of two years by various committees. Up to now, a lot of people have not paid much attention to the valuation requirements, concentrating instead on the nonforfeiture requirements. Some of these people may get a nasty shock when they try to figure out what is required. The description of the method takes only three pages in the regulation, but the formulas are quite complicated.

I'm not going to go over the formulas for the reserves in detail. A prospective approach is used - in other words, the reserve is equal to the present value of future benefits less the present value of future premiums. Fund projections are required for each policy at each valuation date and it requires a lot of computer time to generate these values exactly the way the formulas specify.

Although I'm not going to go over the formulas, I would like to take a couple of minutes to tell you what the results look like. If your statutory valuation assumptions are equal to the guarantees in your policy (say, for example, you guarantee 4% interest and '58 CSO cost of insurance rates) then in general your statutory reserves will equal your account value (fund value) plus or minus an adjustment. That adjustment is for the difference between an expense allowance - your traditional CRVM expense allowance - and any excess first-year load that your policy has.

FINANCIAL REPORTING FOR NEW GENERATION
LIFE AND ANNUITY PRODUCTS

885

What does this mean for the real world? Let's first consider front-end loaded policies, where the cash value equals the account value. In general, unless there is a large front-end load, the CRVM reserve will be less than the fund value. Since the CRVM reserves are smaller than the cash surrender values, an extra reserve for the difference is needed. If the fund gets very small, the CRVM reserves could actually exceed the cash surrender value; we have seen this happen for some policies in actual valuations. On an aggregate basis it probably won't happen, but for individual policies it could happen. This is because there is a provision in the regulation where the expense allowance is graded down as the fund value becomes very small. This is the case when the universal life policyholder stops paying premiums. The fund value may get close to zero, but the formula prevents the CRVM reserve from becoming negative. So, even if you have a front-end loaded policy, you can have situations where the CRVM reserve will be higher than the fund value.

For a back-end loaded policy, the CRVM reserves also are smaller than the accumulated fund and, again, the difference grades down if the fund becomes small. An important point to notice is that, in some situations, the CRVM reserves may be larger than the cash surrender value (but smaller than the fund). This would happen if the surrender charges were large or the fund values small.

These examples are deliberately oversimplified. Any current interest rate or cost of insurance guarantees after issue would increase the reserves. The actual calculation of reserves, as I indicated earlier, is very complicated and takes account of such things as off-anniversary valuations and non-annual premium modes.

The regulation has a section which is essentially a deficiency reserve requirement. If the guaranteed maturity premium (gross premium) is less than the valuation net premium, then the reserve must be recalculated using the guaranteed maturity premium. For a typical UL policy, this essentially means that the initial expense allowance is being amortized by the percentage of premium loads. Under this provision, a no-load UL product with surrender charges would have reserves equal the account value.

One point to keep in mind is that the new tax bill says you have to use CRVM reserves for tax reserves, so a lot of companies may find they have to do the valuation for tax purposes even if their state of domicile accepts a simpler approach for statutory reserves. Note that using the state prevailing interest rates and mortality tables instead of the valuation interest and mortality tables may reduce reserves (because the present value of future benefits are reduced) or may increase reserves (because the initial expense allowance will be smaller).

I should point out that, even if this model regulation does not get adopted by 26 states, it still applies for Federal Income Tax because the law says "Method prescribed by NAIC". Of course, if you are using cash surrender values as your statutory reserves, the IRS might be willing to accept these as tax reserves in lieu of potentially larger "CRVM" reserves.

MR. JOHN W. BRUMBACH: The Academy's Committee on Life Insurance Financial Reporting Principles has been actively involved in addressing the actuarial aspects of GAAP accounting on the new generation of products. Efforts have been directed at indeterminate premium products, single premium deferred annuities (SPDA's) and now, at long last, universal life.

In addressing the issues, the Academy Committee has worked closely with the Task Force on Non-Guaranteed Premium Products of the AICPA's Insurance Companies Committee. Recommendations on accounting guidance for the new types of products are initiated by this Task Force. Ultimately, the final authority and responsibility to establish GAAP rests with the Financial Accounting Standards Board (FASB).

Before describing the efforts currently underway in addressing GAAP for universal life, it might be meaningful to briefly review what has taken place with respect to indeterminate premium products and SPDA's. Conclusions reached, or tentatively reached, on the accounting for each of these products may shed light on the possible outcome for universal life.

In 1982, the Academy adopted Interpretation 1-I which provides guidance on indeterminate premium products. This Interpretation indicates that GAAP assumptions used in computing benefit and expense reserves and deferred acquisition costs should be revised, based on current and projected experience, whenever gross premiums are changed. The revised assumptions, however, should apply only to periods subsequent to the gross-premium-change-date; thereby, leaving the amount of reserves and deferred acquisition costs unchanged at the onset of such revision.

With respect to SPDA's, the AICPA Task Force came out with a Preliminary Draft Issues Paper, dated July 20, 1983, which contains tentative recommendations on the accounting for SPDA's. As stated in its Preface, the Draft was intended to represent the first in a series of drafts that would eventually address GAAP accounting for the entire spectrum of life and annuity products. SPDA's were viewed as representing one end of the product spectrum and therefore would be an appropriate starting point in an effort to isolate major accounting issues. All conclusions in each draft were to be viewed as tentative until the entire project is completed, the purpose being to ensure that consistent accounting guidance is developed for all products.

The Draft Issues Paper tentatively recommends that SPDA's be accounted for in such manner that no gain or loss (except for non-deferrable expenses) be reported at issue. Rather, profits should be recognized over the term of the contract--primarily, as the investment margins are actually realized. Two practices are described for achieving this result--the prospective practice and the retrospective practice. Under the prospective practice, reserves are traditional present value calculations. "No gain or loss at issue" is achieved by solving for the GAAP interest rate which will result in the present value of future benefits and expenses (excluding non-deferrable acquisition costs) being

equal to the gross premium. Under the retrospective practice, benefit reserves are set equal to gross accumulated contract values before adjustment for surrender charges, if any. Deferrable acquisition costs in excess of front-end expense loads are capitalized, and amortized in proportion to anticipated investment margins and surrender charges.

Much of the Draft Issues Paper was based on an earlier discussion memorandum prepared by the Academy Committee. However, there were certain changes incorporated by the AICPA Task Force, the nature of which the Academy Committee is not in total agreement. Comments of the Academy Committee on the draft, which have been communicated to the AICPA, include the following:

1. The Draft Issues Paper seeks to narrow the broad range of accounting practices on SPDA's and may, in addition, be intended to prevent those practices perceived as abusive by the accounting profession. Due to problems which have surfaced within the industry on SPDA's, the paper has had wide exposure and those objectives may have already been substantially accomplished. Additional benefits to be derived by rapid adoption of the guidance provided by the paper would appear to be minor. Consequently, the Academy Committee believes that the draft should be set aside, as originally intended, until comparable progress can be made on other products, principally universal life. In this way, consistent accounting treatment may be developed on all products.
2. No gain or loss at issue (except for non-deferrable acquisition costs) is an accounting constraint, not an actuarial one. It would seem to report income in an excessively conservative manner.
3. The proposed accounting treatment would eliminate most, if not all, of management's prerogative in adopting practices believed to be most consistent with the characteristics and risks of its particular products and operations.

On related matters, the Committee suggested that guidance on loss recognition for these products be expanded. Also, the particular practice adopted by a company should be more fully disclosed in its financials if these products represent a significant portion of its business.

With this background, it might now be appropriate to turn to universal life. The AICPA Insurance Companies Committee has indicated its intention to provide accounting guidance on universal life by the end of this year. To assist this Committee's Task Force on Non-Guaranteed Premium Products with development of such guidance, the Academy Committee Task Force by the same name is preparing a discussion memorandum similar to what it did on SPDA's. Items to be covered include the definition of products to which guidance would apply, the applicability of current principles and methods, the identification and evaluation of current practices, a discussion of the issues, and preliminary recommendations.

With respect to product definition, the Academy Committee Task Force has tentatively chosen that which is set forth in the recently adopted NAIC Model Regulation on Universal Life Insurance. Products would include both flexible and fixed premium forms as well as both indexed and non-indexed versions of universal life.

Current practices on GAAP accounting for universal life have been categorized by the Task Force into the following groups:

1. Those designed to have earnings emerge as a level percent of premium, prior to release of provisions for adverse deviation;
2. Those designed to have earnings emerge as margins on interest, mortality and certain expenses are realized;
3. Those reflecting a blend of the previous two approaches; and
4. All other practices, most of which are relatively simplistic in nature.

As can be seen, the diversity of current practices on universal life accounting is quite large, which may suggest that significantly different viewpoints exist with respect to the pattern in which earnings should emerge.

At the present time, the Academy Task Force and, it would appear, the AICPA Task Force as well, are leaning toward an approach which would produce a pattern of earnings comparable to that under a "blended" practice. Such approach would allow a reasonable amount of earnings to emerge as a level percent of premium, while all other earnings would emerge in proportion to margins. Stated differently, earnings would emerge in proportion to a composite revenue basis reflective of the performance under the contract, as opposed to the single basis of premium.

The composite revenue basis generally would vary by plan depending on the relative importance of each function or service being performed--sales, premium collection, protection, investment, conservation, etc. For example, the revenue basis on an endowment at age 95 anticipated form of universal life, containing balanced emphasis on protection and savings, might be weighted one-third to each of these functions, with the remaining one-third being assigned to premium to represent all other functions and services. A plan expected to contain a lesser savings element, such as a term contract, would place more weight on the protection function and less weight on the savings function.

Earnings emergence in proportion to such composite revenue basis can be effectively accomplished by the use of larger-than-normal provisions for adverse deviation.

FINANCIAL REPORTING FOR NEW GENERATION
LIFE AND ANNUITY PRODUCTS

889

I would like to point out, however, that the Academy Task Force would suggest that the determination of the composite revenue basis contain sufficient flexibility to accommodate the broad range of products in the market place. On certain products a revenue basis consisting substantially of premiums might be appropriate. On others a basis consisting substantially of margins might be more appropriate.

On related matters, the discussion memorandum will address the manner of reporting income on contracts with lump-sum contributions, the accounting for internal replacement transactions, and the possible extension of guidance to variable universal life.

Considering the time frame under which the AICPA Insurance Companies Committee is hoping to provide guidance, all efforts must proceed at an intensified pace. The Academy Committee would appreciate any input you may have on the issues surrounding this matter. Please forward your comments to the Committee's Chairman, Virgil Wagner, as early as possible.

Doug will now get into some general company practices.

MR. DOLL: I will take the product types in the same order that John gave them.

Regarding indeterminate premium products, all companies I am aware of are treating them just like ordinary life except using current assumptions for the life of the policy (e.g., level 10% interest instead of 10% graded to 5%). If premiums change, they intend to follow interpretation 1-I, but very few companies have yet changed premiums so they haven't had to actually go through the mechanics yet. I believe Aetna is one company that has changed premiums and has had to go through the mechanics. No adjustment is necessary if old assumptions continue to produce a pattern of earnings not materially different from that produced by current assumptions.

On SPDA's companies are mixed as to whether they are front-ending profits or spreading profits over the life of the contract. Until recently, a number of major SPDA companies were front-ending at least a portion of expected earnings; however, that trend is reversing. The SEC is attacking the front-end method. They got a copy of the AICPA paper, found five or six major companies that were front-ending profits, and asked those companies to restate earnings eliminating front-end profits. So far, I believe these companies are recalculating but refusing to restate, since restating implies an error made, but they are using a no front-end profit method for new business. It is uncertain as to whether the SEC will proceed further.

One company sells both regular SPDA's and structured settlement options. They use the retrospective approach for SPDA's and do not front-end any profits. They are also using retrospective SPDA methods for their IRA. For structured settlement options, since there is no lapse risk and assets matched the liabilities, all the profit was front-ended. This all

seems reasonable to me. The company did recalculate its earnings assuming that SPDA earnings were entirely front-ended, but this was just to show the Board of Directors why it was not showing profits as high as a couple of the more famous SPDA writers.

Turning now to universal life, John described four different approaches for GAAPing UL. The fourth group was the "simplistic" approach. Until recently, a large percentage of companies fell into this category. We surveyed eleven companies at year-end 1982 and seven were using the "simplistic" approach.

I don't think you can fault them for that. In the absence of authority stating which method is appropriate, many companies have chosen methods which are easy to implement. Their rationale is that, as long as the simple methods produce results which are reasonably close to one of the theoretical methods, the simple methods are justified. Often, the projected incidence of earnings of these simpler approaches is between the two theoretical extremes and, thus, might be regarded as a blended pattern. Such an approach may be justified at this time as it may be unreasonable to expect companies to expend a great deal of effort to develop a method which may be declared inappropriate the following year. In addition, UL is still a fairly small proportion of in-force business for many companies, so that the choice of GAAP method does not affect overall earnings significantly. Thus, materiality considerations may be the primary support for the use of these simpler methods.

The most common simplified method being used by companies is to hold the gross fund value (account value) as the benefit reserve and to amortize deferred acquisition expenses in some manner. Generally, the amount of DAC is reduced by any first-year expense loads. If the DAC were amortized in proportion to income margins, the method would be the "earnings as realized" method described above. The actual items being used by companies to amortize DAC include premiums (ignoring any additional first-year premium), cost of insurance rates for a level net amount at risk, and the minimum premiums required to keep the policy in force.

Amortizing costs in proportion to premiums has considerable appeal for companies seeking a simplified method. It is similar to methods used for traditional products. For companies using the worksheet method of DAC amortization, the mechanics are identical to those used for other plans. The company needs only to determine an assumed lapse rate and a premium pattern for in-force policies, although level premiums per in-force policy generally are assumed. First-year premiums in excess of the "target" premiums may be ignored in order to avoid heavy first-year amortization. While this approach may be described as being based on premium revenue, the simplified premium assumptions result in amortization in proportion to in-force volume.

The incidence of GAAP income compared with other methods depends on the margins in the policy. For a typical UL policy, with front-end loads and attained age cost of insurance charges, the income pattern sometimes will be less front-ended than the pattern produced by the "earnings as realized" method. This is due to the fact that income margins per in-force policy (after margins for adverse deviation) usually will increase by duration, while the amortization of DAC in proportion to premiums will result in amortization earlier than those margins are realized.

A related simplified method used by a couple of companies is to amortize DAC using a premium amortization schedule and solve for the increase in benefit reserves in order to achieve a "reasonable" income result, usually expressed as a percentage of premium. This "reasonable" percentage of premium typically is based on pricing studies. For example, if pricing studies indicated an expected profit of 15% of premium, then the company might choose 10% of premium as a "reasonable" first-year income result. An adjustment is made for non-deferrable acquisition expenses, so that, in the above example, the first-year profit would be 10% of premium less these non-deferrable acquisition expenses. A smaller, or no percentage of premium may be used for collected premiums in excess of anticipated premiums.

Methods such as these are intended to be interim procedures, used until a permanent method is developed. These techniques generally would not be considered appropriate if the effects were material to income. The proportion of companies using more sophisticated techniques (the first three groups in John's list) has increased recently. This is partly due to larger companies getting into the UL market. These companies have the actuarial resources to do the necessary calculations. Also, more companies are finding UL to be a significant portion of in-force business. Finally, the information about various methodologies is becoming more disseminated.

In the survey I mentioned earlier, three of the eleven companies calculate benefit reserves and generally attempt to develop GAAP earnings as a level percentage of premiums. Large margins for adverse deviation in the assumptions still would cause a significant portion of earnings to be reported "as earned". These companies use projections and calculate ratios of benefit reserves to the accumulated fund. These ratios then are applied to the actual accumulated fund.

One of the eleven companies proposed a pure "release from risk" approach where the benefit reserves were set equal to the accumulated fund and the acquisition expenses were deferred and amortized over all sources of earnings, including first-year loads, surrender charges, loads in cost of insurance charges, and interest margins. It appears that more companies are joining this group.

I expect that a number of companies will continue to use these simplified methods for some time, but that they will have to be able to demonstrate that the results are not significantly different from an "appropriate" theoretical method.

It seems that companies now are looking harder at what is called the "return on total capital." For those of you who want to read more about that, Don Sondergeld wrote a paper called "Profitability as a Return on Total Capital" in TSA XXXIV. Return on total capital is a measure of financial performance for a line of business. You have a certain capital associated with your policy and that capital is your benchmark surplus plus GAAP adjustments. Ideally, your year-by-year return on this total capital for GAAP purposes should equal the internal rate of return or the return on invested surplus for that policy. In actual practice it doesn't work that way every year, but there are companies that are starting to look at that and do GAAP projections to see what these rates of return are. The reason for that is that some companies are measured on return on total capital.

The last thing I want to mention briefly is adjustments after issue. There really isn't anything to report yet because it's too soon.

MR. BRUMBACH: I'd like to speak on a specific company practice.

Integon Life entered the universal life market in late 1981. Since that time, its universal life sales have grown substantially. I have been asked to give an individual company's perspective on GAAP for universal life. In doing so, I will briefly describe the approach being followed at Integon Life, and the reasons why we opted for such approach. The approach is similar to GAAP on our traditional products, with earnings expected to emerge as a level percent of premium, prior to release of provisions for adverse deviation. We believe this approach is appropriate with respect to our particular operation. Our universal life product serves the same markets and needs as our traditional products and, also, is sold through the same distribution system. Furthermore, we believe that its future experience can be projected with almost as much certainty as that on our traditional products. A good portion of our universal life sales is written on a bank draft mode of premium payment, which should tend to dampen the aggregate volatility of premiums.

With respect to valuation mechanics, we developed benefit reserve factors per unit of gross fund value in force. These are applied to the actual gross fund value inventory, on an issue age/duration specific basis, to produce benefit reserves on the valuation date. The benefit reserve factors are on a modified preliminary term basis, reflecting a first-year expense allowance equal to the additional first-year load charged under the policy. Such basis produces better-behaved factors by duration, than a net level basis, since the reserve build-up is more consistent with the actual build-up of fund values. Acquisition costs in excess of the additional first-year expense charge are capitalized, and amortized as a level percent of gross premiums via a worksheet schedule. Such schedule

FINANCIAL REPORTING FOR NEW GENERATION
LIFE AND ANNUITY PRODUCTS

893

is dynamically adjusted based on the ratio of actual to expected premiums in force. At the present time, "actual premiums" are set equal to the planned premium on each policy in force. As time proceeds, we would ultimately like to define such premiums as the average amount of premium collected per year during a period of 1-3 years prior to the valuation date on each policy then in force.

Assumptions used in computing the benefit reserves and deferred acquisition costs include provisions for adverse deviation which we feel are reasonable for our particular product. Also, premiums are assumed to follow a level payment pattern, except in the first year, where a modest additional amount for lump sums from external sources has been anticipated.

Before adopting the method, we conducted various sensitivity tests to determine how well it would respond when actual experience differed from what we had assumed. Differences in premium payment pattern, the level and spread between interest earned and credited, etc., were examined. We found that the method responded reasonably well under such tests, even when the differences were rather substantial.

Now Doug will talk about internal management reporting--general company practices.

MR. DOLL: I would like to cover two trends in management reporting: (1) trends in reporting by product instead of major line of business, and (2) trends in measuring results.

Historically, companies reported by major line of business. This was obviously necessary to measure results by department and for financial statement purposes. Now the trend is toward separate reporting by product. The foundation for this trend has to do with interest-sensitive products like SPDA's and universal life. This is partly because the assets need to be separated for these products; therefore, we might as well have separate reporting by product. Additionally, companies have used non-traditional products to dabble in non-traditional distribution systems (like salary savings for universal life). Reporting by separate product facilitates reporting by separate distribution system.

One of the nice things about the fact that many companies are doing separate reporting for universal life as opposed to all ordinary income is that some company managements are getting an education about how GAAP works. I know of two companies that were surprised when they found out the first year they introduced universal life that at the end of the year the GAAP bottom line was negative. The reason for that was non-deferrable acquisition expenses. The other nice thing about having separate product reporting is that it's a check on the accuracy of the GAAP methodology they're using. If the bottom line number is way out of line you could take a look at that number and see that maybe the universal life GAAP methodology you were using wasn't so good after all.

Turning now to measurements of results. For non-traditional products, perhaps the change in measuring results has not been so much in the nature of changing the score card but instead in adding more columns to the score card. For example, let's talk about measuring production. In the past when you measured production it was total premium issued. Now for universal life you might want to break your premium issued down into the following categories: new policies, internal replacements, external replacements, increases in amount after issue, and riders. What do you use for premium on universal life production? Do you consider the planned periodic premium or do you include the additional premium? Should face amount be one of the items of production? Number of policies?

Regarding interest: In the past, it was easy to measure and compare investment performance. For individual life insurance, a 7% portfolio return was obviously better than a 6% return. With non-traditional products, investment results are being measured in terms of the interest rate spreads (the difference between the earned and credited rates), because the spread is the only thing the company keeps. However, interest margins are not the only thing to track. Tracking the relationship between market value and book value of assets also is important. (Hopefully, an analysis of the impact of the planned investment strategy was made before the product was introduced.) For internal replacement, care should be taken that the low interest assets associated with cash value rollovers do not distort the results.

Turning now to lapses. For many non-traditional products, especially UL, this is the most difficult area to measure. What do you measure?

Reduction in number of policies?

Reduction in face amounts? (This is distorted by increases.)

Reduction in premiums? (This is distorted by additional payments.)

Riders? (These may differ from the basic plan and may be worthwhile to measure separately.)

Many companies have not yet addressed this.

Measurement of mortality hasn't changed but, again, we may need more information on the score card. As mentioned previously, companies may use a single non-traditional product in many different markets. For example, the same UL product may be used for Ordinary Agency or Salary Savings, where the mortality would be very different. Therefore, more details may be necessary in reporting, but most companies only worry about these differences in pricing not in tracing.

The last item I want to mention is measurement of expenses. Expenses are still the same; they haven't changed. There is a problem with universal life on allocating expenses. For example, if you do an expense validation, what premium do you use on universal life? What premium do you assign your percent of premium expenses to? I happen to feel it

FINANCIAL REPORTING FOR NEW GENERATION
LIFE AND ANNUITY PRODUCTS

895

should just be the planned periodic premium, but you must have some way to split the extra premiums out so you don't get a lower expense rate than you ought to get. There might also be a problem with expenses that are allocated on a per thousand basis if you have significant increases in face amount after issue.

Next John will talk about management-reporting practices of a specific company.

MR. BRUMBACH: For internal management purposes, Integon Life employs separate line of business reporting on its universal life and other interest-sensitive products. Such reporting is conducted on a monthly basis.

In addition, the spread between interest earned and credited on these products is monitored on an on-going basis, based on experience observed on separately identified assets within the general account. We also keep track of the relationship between market and book values on such assets. Lapse experience is currently being measured based on policy count, amount, and planned premium inforce. Efforts are underway to factor in the relationship between actual premium collected versus planned premium on each policy. With respect to measuring experience on mortality and expenses, no special considerations have been identified.

Experience on universal life internal replacement business is tracked separately. We view such business as representing a continuation of the old business being replaced and, therefore, expect its future experience will differ from that associated with regular business. Such differences in anticipated future experience led us to develop separate benefit reserve factors and deferred acquisition cost schedules for this business. As a result, we feel it is important to separately monitor its experience.

MR. DOLL: The last topic on our agenda is internal replacements.

There's been a lot of publicity on internal replacements, internal replacement programs, how you decide whether or not a company ought to introduce an internal replacement program, and how you account for these internal replacement programs. I mentioned earlier that in GAAP for universal life a lot of companies were using a simplistic method because the dollar amounts weren't very large. That's true for the regular universal life, but for internal replacements the dollars involved in some of these companies are quite large, so this has been probably analyzed even more than what the correct methodology is for new issues.

The basic question on internal replacements is how do you treat the old policy that got replaced? Do you treat it as a lapse and a brand-new issue or a continuation of the old policy? There's been no official pronouncement yet from either the actuarial profession or the accounting profession, but the concensus among the companies and the accountants seems to be to treat this as a continuation of the old policy. In other words, the proper time-frame to measure the consequences of this

replacement is the lifetime of the new policy, and the replacement transaction should not cause distortion. This means that you carry over the DAC on the old policy adjusted for any difference between the cash value and the benefit reserve on the old policy, subject to recoverability.

The recoverability test is an area of contention. What do you use to demonstrate recoverability of the grand total DAC on these replacement policies? There's a pyramid of choices. At the top of the pyramid are the internally replaced policies. The next step down is all universal life policies issued in that year. The next step down is all ordinary life issues of that year. I think in practice most companies are saying let's use all our universal life policies. They demonstrate recoverability on that, and they don't have to go down to the next step.

Regarding GAAP methodology for the replaced business, these policies will have different mortality experience, lapse experience, different premium patterns than from externally produced business. This should be taken into account when you come up with your GAAP methodology for this new business. It's probably okay to come up with an aggregate set of assumptions for all your universal life policies. You don't necessarily have to calculate separate factors for internal replacements and for the externally produced business. If you use the same factors for all business you should at least bring the assumptions for your internal replacements into the aggregate pool.

I already spoke earlier about keeping separate track of internal replacements for internal management reporting and for measuring production. One other issue warrants attention with regard to internal replacements. If no special accounting was done for this replacement, then both surrenders and premiums would increase. In an effort to reflect the continuing nature of this policy you should record neither. One advantage of recording neither is that you may avoid paying unnecessary state premium taxes on the cash value rollover.

MR. BRUMBACH: On internal replacements, Integon Life has taken the position that the new universal life policy represents a continuation of the old policy, and, consequently, there should be no effect on earnings at the time of replacement (provided no recoverability problems are encountered).

With respect to acquisition costs, we capitalize those deferrable on the new policy, those remaining on the old policy, plus any difference between surrender benefits and benefit reserves released on the old policy. From a recoverability standpoint, we periodically review how the amounts capitalized compare to various thresholds per \$1 of premium issued:

1st threshold -- limit at which profit margins are reduced to the same level as on our regular sales of universal life.

FINANCIAL REPORTING FOR NEW GENERATION
LIFE AND ANNUITY PRODUCTS

897

2nd threshold -- limit at which profit margins are reduced to zero on internal replacement business.

3rd threshold -- limit at which profit margins are reduced to zero on all universal life business.

Recoverability would not appear to be threatened until the 3rd threshold is surpassed. Obviously, we have no desire to attain such level.

With respect to benefit reserves, we use the same approach as on regular business. However, in developing the benefit reserve factors per unit of gross fund value in force, we set the benefit reserve and gross fund value at issue equal to the anticipated amount of cash value to be rolled-over from the existing policy. Such technique effectively by-passes any recognition of the cash value rolled-over as premium, yet reflects its impact on future benefits. In a way, this technique is similar to the process undertaken whenever gross premiums are changed on indeterminate premium products--future benefit reserve increases build off of a predetermined starting reserve.

I believe Bill has some additional information on the AICPA Task Force meeting of yesterday with respect to GAAP accounting on universal life.

MR. SCHREINER: Members of the Academy Committee met with the AICPA Non-Guaranteed Premium Products Task Force yesterday to review the progress of the Academy's efforts to prepare a paper on accounting for universal life insurance. As John indicated earlier, the conclusions that the Academy Task Force had reached were that the paper should recommend the "blended" approach, whereby profits would come through under GAAP as a combination of premium revenue and release from the adverse deviation margins. The AICPA Task Force was quite sympathetic to that point of view, except that they expressed reservations as to just how that "blending" takes place. At one end you have the Audit Guide approach which says strictly "premiums" and at the other end you have profits coming out only as the release from margins. The "blended" approach, if you take it to the extreme, can cover the Audit Guide approach or it can cover the "as realized" approach. So the Task Force's questions were mainly related to how you can have an accounting model that provides guidance where such a wide range of practice is available. In other words, how do you determine for specific products and specific situations where in that continuum you might wind up? The Academy representatives expressed their expectation that the paper would provide some guidance along those lines. Whether the accountants will be satisfied with the work of the Academy and be willing to adopt it as accounting guidance, of course, remains to be seen. The accountants set accounting practice and the role of the Academy has been to assist them in that endeavor.

I would like to open the floor to questions and comments.

MR. CARL WRIGHT: As a little background, I'm a financial actuary for a mutual company that doesn't have to worry at the moment about GAAP results, but I know very well that under statutory accounting our management just doesn't know whether what we're doing is profitable or not. Our major products are Universal Life, SPDA's and IRA's. So, we may be a mutual company but we issue only stock company products nowadays. I hope we don't get into a situation where we're forced to use only, or allowed to use only, one method for calculating GAAP results on these new interest-sensitive products. Now I can see John's company where they basically issue preauthorized check mode where their business is going to act very much like traditional business and therefore, they can use a percentage of premium approach to the emergence of the GAAP profits. To a certain degree that might also be true at my company because 85% of our business is either annual or check-o-matic monthly mode, but for many other companies that aren't in that market you've really got to ask yourself the question, "where are my margins coming from to cover my expenses?" That suggests more of a release from risk type of approach as the margins emerge. So what might be appropriate for Integon because of the way they do business might be totally inappropriate for my company. There's going to be a much greater need for diversity in what companies can use in terms of developing their GAAP profits, and how they emerge under their various kinds of contracts.

MR. SCHREINER: Based on my observations, the accounting profession is not comfortable with an accounting model that lets anyone do whatever they wish to do. In their mind there is a need to provide guidance so that you can tell when the accounting practice of a given company is appropriate and when it is not. Hopefully this particular paper will do that and if it does that to the satisfaction of the accounting profession that will mean that a company cannot do whatever it wishes to do, but that it would have to do what is appropriate to that situation according to appropriate guidance within the accounting model. The existing model, of course, can be criticized because within the Audit Guide, depending on the margins that you put into the premiums, you can get a wide-ranging result from a very much up-front profit stream to a very much down-the-road profit stream. But, fundamentally, accountants don't have anything to audit, if anything goes.

MS. CAROL MARLER: I'd like to continue this same issue a little bit further. In my own company we issue mostly flexible premium annuity products for the tax-sheltered annuity market. Last year-end our auditors, seizing upon the AICPA's SPDA Issues Paper and applying it in a somewhat simplistic manner, concluded that we need to make a slight adjustment to our DAC because they didn't want us to show any profit at issue, either on the single premium rider or on the flexible premium part of the product. And again, I'd like to just express a desire that some further recognition be given to using actuarial judgment as opposed to a standard fixed approach that may give a single answer, but not necessarily the right one.

FINANCIAL REPORTING FOR NEW GENERATION
LIFE AND ANNUITY PRODUCTS

899

MR. SCHREINER: Of course, the actuarial profession has been working with the accountants over a period of time and that is one of the areas that has been emphasized, but speaking on their behalf, the accountants do have, I think, legitimate concerns. There need to be some standards. John, would you like to comment?

MR. BRUMBACH: One of the comments of the Academy Committee to the AICPA, as I mentioned earlier, was along the lines of what you just said. To go all the way to a no gain or loss situation, when really it's more than likely going to be a loss situation because of non-deferrable acquisition cost, seems to be a little stringent.

MS. MARLER: I could add a side-light on one additional absurdity. On some of our single premium products we were able to issue them with a lower commission rate, which meant, according to the AICPA approach, if we do it on the prospective approach we have to use a different interest margin on that block of business even though the features are identical. The policyholder is treated in an identical manner and it seemed a little absurd to me to be required to make that consideration.

MR. BRUMBACH: It would appear to be somewhat anomalous to require no gain or loss at issue on single premium products, yet allow some earnings to emerge at issue on level premium products. But I believe the accountants felt that if they left the door open a crack then they would have no way to control it.

MR. SCHREINER: I don't think an accountant would hold that no gain at issue is a theoretically proper result, but it is a very practical choice for some of these products and particularly practical when both the companies and the AICPA have the SEC looking over their shoulders. I might mention that the AICPA Insurance Companies Committee met with the SEC in January. One of the subjects they discussed was accounting for universal life insurance and the AICPA made a commitment to the SEC that they would have accounting advice by the end of this year as was mentioned earlier. The SEC's response to that was "Well, if you have any trouble meeting that schedule, we want to know about it."

MR. LEE R. LAMBERT: I had a question about the amortization of the DAC. There was a time when it was felt that you should not amortize it other than in relation to premium. Is there a current trend towards also amortizing it in relation to other types of income, like interest income or mortality profits, or are we holding pretty much to premium?

MR. DOLL: In the past, everybody was amortizing DAC over premium with the traditional products and were following the Audit Guide which said that earnings should be a level percentage of premiums. When we start getting into universal life, if we do indeed get into the situation where it's appropriate to recognize part or all of your earnings on elements other than premium, then I think we will see amortization over things other than premiums. With some of the approaches being used for universal life you end up calculating a net liability as opposed to calculating a benefit reserve and amortizing your DAC. You have to take that net liability and split it into the benefit reserve component and

the DAC component which might be quite artificial. In that case, I suppose you could use the premium amortization or anything you please, choosing something that looks reasonable and satisfies the accountants.