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NEW PRODUCT ACCOUNTING ALTERNATIVES

Moderator: WILLIAM T. TOZER
Panelists: TIMOTHY V. BECHTOLD
 JOHN T. GLASS
 JAN L. POLLNOW
Recorder: STEVEN K. STONER

Statutory, Generally Accepted Accounting Principles (GAAP) and management reporting for new products and distribution systems including:

- o Variable products
- o Indexed products
- o Reinsurance
- o Nontraditional distribution systems
- o Universal life
- o Flexible premium annuity
- o Single premium annuity

MR. WILLIAM T. TOZER: The American Academy of Actuaries (AAA) Committee on Life Insurance Accounting Principles has been intensively involved in work on the topic of this session. Two of today's panelists are members of that committee and the third has provided it with extensive technical support.

Several years ago, the American Institute of Certified Public Accountants (AICPA) began to look at the accounting principles being used for, primarily, single premium annuities. This activity was initiated by the Securities and Exchange Commission (SEC) as a result of some of the problems that surfaced in the Baldwin-United and Charter situations. The AICPA asked for input from the AAA Committee on Financial Reporting Principles in the conduct of their work. The Academy committee did pass along many comments. The AICPA eventually developed a white paper that was widely circulated, especially among companies active in the single premium deferred annuity market. As a result, many of those companies changed their methods of accounting for these products.

In late 1983, the SEC made comments to the AICPA about the accounting approaches used for universal life products. In fact, the SEC told the AICPA that if the AICPA did not establish accounting standards for universal life, then the SEC would do it. Again, the AICPA asked for

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input from the Academy through the Financial Reporting Principles Committee. After receiving the Committee's input, the AICPA developed a white paper on universal life.

Both of these white papers were sent to the Financial Accounting Standards Board (FASB). During 1985, the FASB staff prepared several sets of recommendations for the FASB Board. The board had planned to expose suggested changes to FASB 60 in the fourth quarter of 1985 and have a final set of standards by early 1986. The most recent meeting of the FASB Board was last week. During that meeting, the board members were still asking very probing questions of their staff. Many are still hoping that an exposure draft will be out in the fourth quarter of 1985, but that is questionable.

MR. TIMOTHY V. BECHTOLD: SPDA--What do these letters stand for?

- A. Super product development actuaries
- B. Suspicious profit does appear
- C. Single premium deferred annuities
- D. All of the above

Even though some may say "D. All of the above," the correct answer is "C, single premium deferred annuities." This product together with flexible premium deferred annuities (FPDAs) form the oldest of the "new products" we are considering this afternoon. My comments will focus on valuation issues related to these annuities under statutory, federal income tax and GAAP) accounting requirements. First, though, I would like to talk about what I consider to be the most significant financial reporting issue of the 1980s: asset/liability matching.

We are all well aware that traditional accounting practices are very useful for evaluating a company's financial strength when economic conditions are relatively stable. However, the financial markets of the late 1970s and early 1980s were everything but stable. The economy was wrenched by double-digit inflation and interest rates were extremely volatile. This environment led to periods of severe disintermediation as the life insurance industry learned the hard way about the risk of borrowing short and lending long. Under these unstable conditions, conventional accounting proved unsatisfactory.

Conventional accounting is predicated on specified valuations of assets and liabilities. These valuations amount to assigning a present value to future cash flows. Under both statutory and GAAP accounting, two fundamental assumptions underlie the asset and liability valuations, namely,

1. a stable interest rate environment and
2. that asset and liability cash flows will materialize pretty much as expected.

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The real risk to the insurance company is that cash flows will deviate from expected as a result of volatile interest rates and/or other contingencies. Thus, adequate asset/liability matching becomes an overriding prerequisite in accounting for all interest-sensitive products, especially those with book value cash-out privileges.

An example will highlight this point. Let's assume a customer gives an insurance company \$100 for a GIC contract that guarantees a 10 percent interest rate for four years. The customer, by the way, can cash out early at book value if he so desires. Now this company employs a highly-paid economist who has predicted that interest rates are going to plunge downward very soon. Thus, management decides to back their liability by investing the \$95 they have, after paying \$5 to the agent for selling the product, in a four-year zero-coupon bullet bond earning 12 percent. This, they speculate, will maximize profits, as surely the customer will not surrender early because his accrual rate will be higher than he could get anywhere else.

Assuming our conventional methods of valuation, that is, assets at amortized value and liabilities as the present value of future benefits, let's look at two different scenarios. Under the first set of circumstances, the economist was right. Interest rates do drop, thus the customer holds his contract until maturity and assets and liabilities are coincidentally matched. In effect, the company gambled and won.

In this case it is informative to look at several different valuations. (See Exhibit #1--Assets and Liabilities Matched.) As is evident, the different valuations do not affect the total present value of profits recognized over the four years. However, they do impact the timing of the recognition of profit rather dramatically. The 4 percent statutory valuation is obviously redundant, but the 9 percent statutory valuation seems reasonable. The GAAP valuation realizes profit as a level percentage of assets and yields a very pleasing pattern of earnings.

Now, let's see what happens if reality does not follow the economist's prediction and interest rates spike to 15 percent in the second year. (See Exhibit #1--Assets and Liabilities Mis-Matched.) Disaster strikes! Assets and liabilities are no longer matched because the customer decides to surrender his contract and invest his money elsewhere at a higher rate. The company's financial picture takes on quite a different look. Now the only valuation method that looks adequate is the one that previously was redundant! And under all methods, the present value of profit is negative.

This example, although not very realistic, does illustrate the dynamics involved when book value cash-out products meet volatile interest rates on a mismatched playing field. This leads to an important caveat: Setting up proper reserves in today's environment requires first and foremost, an analysis of the degree of asset/liability matching. The larger the mismatch the greater the reserves should be, for both statutory and GAAP requirements.

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EXHIBIT 1

IMPACT OF ASSET/LIABILITY MATCHING
ON STATUTORY AND GAAP VALUATIONS

Liability: 4-year GIC type product at 10%
Asset: 4-year zero coupon bullet bond at 12%

Assets and Liabilities Matched

Valuation Method	Year				Present Value of Profits at 12%
	1	2	3	4	
STAT 4%	(23.76)	10.42	10.82	11.26	1.95
STAT 9%	(6.66)	3.40	3.70	4.03	1.95
GAAP 11.42%	0.55	0.61	0.69	0.76	1.95

Assets and Liabilities Mis-Matched

Valuation Method	Year				Present Value of Profits at 12%
	1	2	3	4	
STAT 4%	(23.76)	18.21	-	-	(6.70)
STAT 9%	(6.66)	(0.94)	-	-	(6.70)
GAAP 11.42%	0.55	(9.02)	-	-	(6.70)

Let's turn our attention now to statutory valuation, realizing that to safely use minimum statutory reserves, especially with dynamic valuation interest rates, reasonable asset/liability matching must be present. The Commissioners' Annuity Reserve Valuation Method (CARVM) adopted by the National Association of Insurance Commissioners (NAIC) in December, 1979 is the minimum statutory reserve method required by nearly all states. For individual annuities, CARVM requires the comparison of the present value of future guaranteed benefits at the end of each contract year with the present value of future required premiums payable to the future duration. The minimum reserve for a contract is defined to be the greatest excess revealed by this comparison. Another way of viewing this method is that the reserve, accumulated at the valuation interest rate, must provide for all contractually guaranteed benefits. This implies that the minimum reserve can never be lower than the cash surrender value.

The appropriate methodology for calculating CARVM reserves for contracts containing a bail-out provision was clarified by the NAIC in June of this year. The new actuarial guideline includes the following requirements:

1. The value of future guaranteed benefits under CARVM may not be reduced by contingent surrender charges that may not be available upon cash surrender. In other words, you cannot deduct surrender charges from future guaranteed benefits on annuities with meaningful bail-out rates.
2. Contracts with bail-out rates less than the calendar year valuation rate for life insurance policies with guaranteed duration in excess

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of 20 years may reduce future guaranteed benefits by surrender charges under CARVM.

3. Contracts with bail-out rates tied to an external index that has historically been higher than the valuation rate for life insurance policies with guaranteed duration in excess of 20 years may not reduce future guaranteed benefits by surrender charges under CARVM.
4. A variable annuity reserve cannot be reduced by surrender charges if any of the investment options available to a policyholder contain a bail-out option.

One can never end a discussion of statutory developments without mentioning the situation unique in New York. Contrary to most states, New York never adopted CARVM. Basically, New York's method is the same as CARVM except that no surrender charge offset is allowed in calculating reserves for bail-out or non-bail-out annuities and no discounting is allowed at a valuation rate higher than the guaranteed rate. New York also requires an actuarial opinion analyzing the degree of asset/liability matching to support use of the higher dynamic valuation interest rates. Currently, not many companies file the actuarial opinion because, unless there are long current interest guarantees in contracts, using the higher dynamic valuation interest rates does not have a significant impact on reserves.

This will all change dramatically in 1986 when New York's new annuity law takes effect. The new law is a significant piece of legislation and the regulations emanating from it should be of interest to all actuaries. Specifically, the law requires all insurers to file actuarial opinions and supporting memoranda demonstrating that the assets held by the company in support of its annuity reserves make good and sufficient provision for all future obligations. If an acceptable opinion is filed, that is, adequate matching is demonstrated, the insurer is allowed to use the higher dynamic valuation interest rates and is permitted recognition of surrender charges for non-bail-out annuities in calculating minimum reserves. On the other hand, insurers who fail to file an acceptable actuarial opinion will have to put up substantially greater reserves, referred to as penalty reserves. Penalty reserves will also be required if the difference between the Macaulay duration of the assets supporting annuities and the Macaulay duration of the liabilities under these contracts is greater than three years. In addition the law authorizes the insurance department to issue regulations defining proper methods of applying the "Annuity Reserve Valuation Method," or ARVM, New York's version of CARVM.

Turning briefly to tax valuation, we note that, in general, the reserve for tax purposes is the greater of the cash surrender value or the reserve calculated under the "tax reserve method," but it can never be greater than the statutory reserve. Section 807(d)(3) of the new tax law mandates the use of CARVM as the "tax reserve method" for currently-issued annuities. I previously noted that statutory CARVM involves discounting future guaranteed benefits at the valuation rate and finding the greatest excess of this pattern of discounted values

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over any discounted premiums. CARVM for tax reserves, on the other hand, prohibits discounting any future guaranteed benefits if the guaranteed interest rate exceeds the prevailing state-assumed rate. Thus, for deferred annuities, any excess interest reserves a company must hold on a statutory basis will not be allowed for tax reserves. You should also be aware of the fact that, because the NAIC did not clarify CARVM reserves for bail-out annuities until June of this year, companies were allowed to hold reserves for 1984 tax purposes as they saw fit. Many companies chose to maximize their fresh start adjustment, but since there was no guidance by either the NAIC or the IRS, any position selected is somewhat tenuous.

Finally, I would like to talk about GAAP accounting for annuities. In 1972, when the Audit Guide was published, SPDA sales were an insignificant part of total insurance product sales. As a consequence, the product was not given extensive consideration by those who drafted the guide. The Baldwin-United situation provided the motivation for the initial effort at analyzing GAAP accounting for "new products." The result of this effort was a July 1, 1983 draft issues paper on accounting for SPDAs. This paper was developed by the AICPAs Nonguaranteed Premium Products Task Force with substantial input from the AAA. It dealt only with fixed SPDAs and included the following disclaimer:

"The purpose of this draft is to identify issues, explore alternatives and provide preliminary conclusions. As this is part of a broader and longer term project, the conclusions contained herein are tentative and subject to change."

Although the paper was nonauthoritative, the SEC used it to force a number of companies to adopt more conservative accounting for SPDAs consistent with the principles described in the paper.

On November 5, 1984, the AICPA Insurance Companies Committee, again through its Nonguaranteed Premium Products Task Force, completed an expanded issues paper on accounting for annuities and universal life. This paper has been sent to the FASB whose members are currently studying the issue. It is my understanding that a preliminary version of an exposure draft on accounting for universal life and annuities was presented by FASB staff for discussion at their board meeting last week. FASB's goal is to release a final exposure draft to the industry prior to year end, however, this goal seems to be in jeopardy. Thus, until final accounting advice appears, the draft issues paper is our best guidance. It reports the following conclusions for SPDAs and FPDAs:

- o The deposit approach should be followed.
- o No income should be recognized when the contract is issued (ignoring nondeferrable expenses).
- o No portion of the total expected income should be recognized as a percentage of premiums.
- o All income should be recognized over the term of the contract.

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- o The GAAP benefit reserve should equal the gross accumulation value.
- o Deferrable acquisition costs (DACs) should be capitalized and amortized in relation to reasonably anticipated investment margins, expense charges, and surrender charges.
- o Variable annuities should continue to be accounted for in accordance with FASB Statement No. 60.

FASB 60 makes reference to three sources of revenue for variable annuities: sales charges, asset charges and surrender charges. It goes on to say that if sales charges are insufficient to cover acquisition costs, then the remaining deferred acquisition costs should be amortized against a portion of the asset charges, over the period these charges are assessed. In effect, revenues and therefore profits are recognized over the life of the contract in proportion to the functions and services performed. This FASB 60 methodology for variable annuities formed the basis of the conclusions of the issues paper for fixed annuities. In other words, revenues and profits should be recognized over the life of the fixed annuity contract in proportion to investment income because the investment function is the primary service performed.

The issues paper suggests two ways to implement the deposit approach: prospectively or retrospectively. The prospective deposit approach keys off of developing future cash flows based on

- o withdrawal assumptions,
- o mortality assumptions,
- o expense assumptions,
- o investment earnings rate assumptions,
- o accrual rate assumptions,
- o and for FPDAs, payment persistency assumptions.

As usual, these assumptions should contain reasonable margins for adverse deviations. The technique then is to use these projected cash flows to determine an interest rate, at policy issue, such that the present value of future benefits and expenses (excluding nondeferrable acquisition costs) equals the present value of all premiums received. If this so-called break-even rate is less than the expected investment earnings rate, then it can be used to develop prospective reserves and DACs in the conventional way. If the calculated break-even rate cannot be supported by the expected earned rate, recoverability adjustments must be made. In other words, you won't be able to capitalize all of your deferrable expenses.

The reserve for FPDAs under this approach is equal to the present value of future benefits less the present value of expected benefit net premiums using the break-even interest rate for discounting. The

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DACs for FPDAs are correspondingly the present value of deferrable expenses minus the present value of expected expense net premiums. For SPDAs, the prospective method does not lead to the development of DACs, only net benefit reserves. However, DACs are required for presentation purposes for both SPDAs and FPDAs. Thus, benefit reserves need to be "grossed up" to the accumulation value and the difference between the accumulation value and the reserve set up as DACs for SPDAs and as additional DACs for FPDAs. I should mention that, under this configuration, DACs may be written up even though there are no new deferrable expenses capitalized. This is because the DAC is amortized with a portion of the spread. However, it increases with interest and, in the early years, it is possible for the interest increment to be greater than the amortization decrement. This so-called negative amortization may alarm some auditors.

The other technique used to achieve the desired result of no income at policy issue is the retrospective deposit method. Under this approach, the gross accumulation value is defined as the reserve and deferrable acquisition costs not immediately recoverable when front-end loads are capitalized. Amortization methods range from arbitrary approaches such as straight line over a fairly short period of time to more sophisticated methods such as those related to reasonably anticipated future investment margins and surrender charges. This second amortization method relies on the future assumptions previously mentioned.

Now, let's see how the pattern of earnings under these recommended approaches compares to the literal application of FASB 60 for a \$20,000 garden variety SPDA. I have ignored nondeferrable and maintenance expenses in this example. (See Exhibit 2.) Certainly the fronting of earnings under the premium approach or literal Audit Guide approach is obvious on this graph. As a matter of fact, to get the first-year earnings to fit on this graph, I had to put a fair amount of margin for adverse deviation into my interest assumption. Thus, as these margins are released, income is earned in years two through ten as a function of assets. The theoretical prospective and retrospective methods, based on future assumptions, produce the same pattern of earnings, represented here by the middle line on the graph. Certainly this pattern of earnings is more reasonable than that produced by the premium approach. Here earnings emerge each year as a level percentage of the beginning of year assets. Lastly, I have diagrammed the retrospective approach using straight-line amortization over ten years. This approach is slightly more conservative than the theoretical retrospective method, however, possibly simpler to implement.

This brings me to several words of warning regarding implementation:

- o Prospective methods may be dangerous if actual experience deviates significantly from what is assumed. Under these conditions, the concept of "unlocking" assumptions applicable to universal life accounting may be desirable.
- o If you implement either of these approaches by developing factors, be sure you understand the significance of the denominator. For example, factors applied to an in-force statistic such as gross

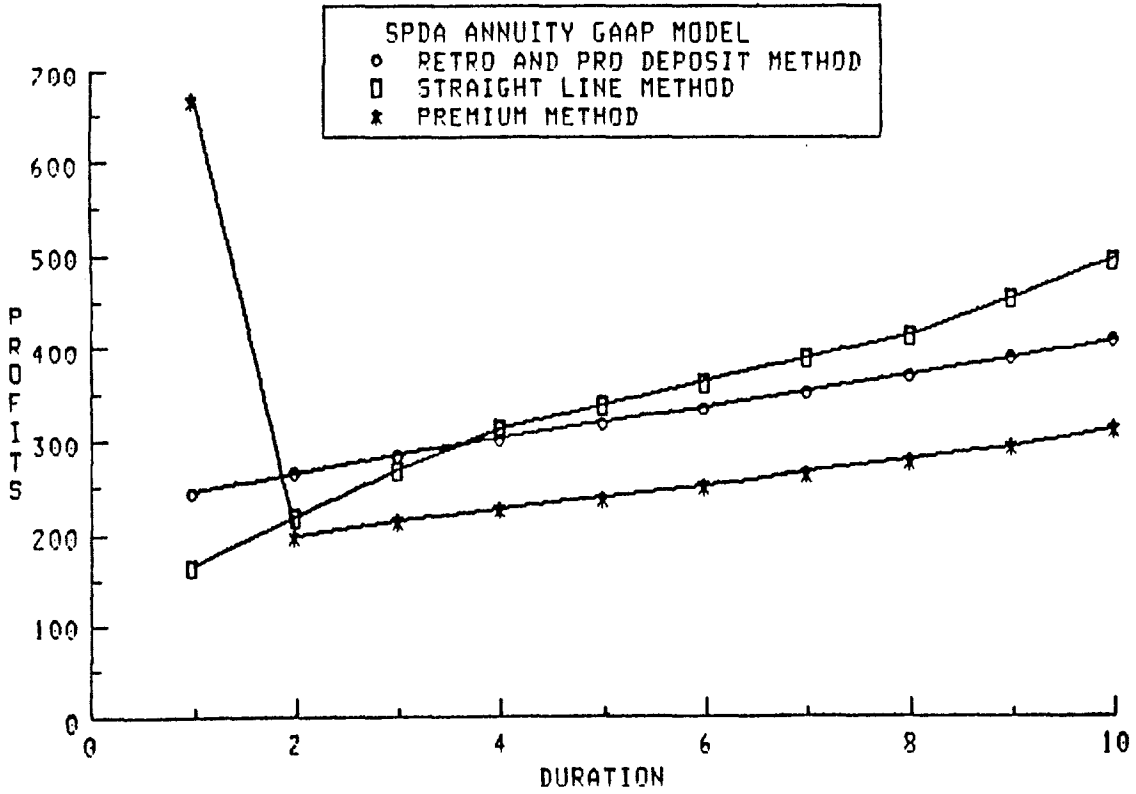


EXHIBIT 2

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annual premium or gross single premium may produce unreasonable results if accrual rates change significantly or payment persistency is different from assumed. Likewise, factors applied to accumulation value may produce strange results for variable annuities. For instance, if the stock market drops, expense amortization may accelerate. If the market goes up significantly, negative amortization may result.

- o Be very sensitive to the actual spread you are getting on your annuities. Competition within the financial services industry for the savings dollar is extremely intense and has led many companies to cut their target margins. This, in turn, can create recoverability problems.

In closing, I would like to leave you with one more interpretation of the initials SPDA, and that is "sensible professionals do asset liability matching." Thus, whether you are doing statutory or GAAP valuation for interest-sensitive products, I urge you to do "sensible" accounting.

MR. JOHN T. GLASS: Before we address some of the statutory, GAAP and tax issues on universal life, it may be helpful to put universal life into perspective as a product that has come of age. When one starts to compare universal life with conventional life products, one might be inclined to think only of the conventional products most prevalent in very recent years: level benefit whole life with level premiums, and level or decreasing term with either level premiums or one-year term premiums. But some of us recall forms of conventional policies that, for one reason or another, lost popularity, but which bore characteristics associated with today's universal life policies.

One such policy was the endowment annuity with the death benefit equal to the face amount plus the cash value. This was issued by a number of companies and was a familiar textbook example.

Lincoln National was one company that marketed, for 50 years or more, several policies with considerable flexibility. One was the so-called 23-year endowment policy. The initial premium would naturally endow the policy at the end of the endowment period, however, there were a number of guaranteed options. At the end of any early policy year, a specified lower premium could be continued which would provide a level amount of whole life insurance. Another option was to allow the accumulated cash value to purchase paid-up whole life rather than purchase the usual endowment insurance. Another flexible policy was called the Emancipator. It was a term to age 65 and had similar options with it.

The purpose of the above illustration is to point out that both the industry and the public have been aware of the advantages of having flexibility in insurance products for a long time. The older attempts were often difficult to explain. A combination of state laws and the tendency to continue past practices required that election of any of the options mentioned above resulted in a complete reissue which, incidentally, eliminated any further options. The apparent flexibility was really quite limited. Rising costs eventually proved the death knell for this kind of policy. With the advent of the computer, the tool was

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present to provide the needed product. But time was needed. The initial effort on the part of the industry was to use computers to control rising administrative costs on enormous blocks of conventional products. The next effort, requiring quite a few years, was to design products that would meet the public's needs, making use of modern technology, and to get the necessary changes and laws enacted. Universal life is the first computer-age product to gain wide acceptance. Because universal life is a highly flexible product and because it's the first "high-tech" product, the computer systems affect not only what is done but how it is done. With those observations as background, let's discuss some of the accounting issues.

First of all, let's talk about statutory reporting. Many of us who have been in the business for a long time are quite familiar with having an operating system that incorporates a master record, having a separate statutory valuation system and, perhaps, having a separate GAAP valuation system. In contrast, most of the universal life operating systems today are programmed to calculate statutory reserves. The reason for that is simple. The system is set up on a monthly basis to calculate the accumulated value on every policy. So it's easy to take the December accumulated value, which is assumed to carry a December 15th anniversary, and simply bring forward the total accumulated value calculation to the end of the year. Thus, the computer system provides the statutory liability on all front-loaded products. To calculate the back-loaded product statutory reserves, it's only necessary to calculate the surrender charges and deduct those. The operating system provides the statutory reserves for the statutory statement and also for the internal company actuarial report.

As we think more about statutory reserves, we realize that the Commissioners' Reserve Valuation Method (CRVM) is now defined for universal life. This definition is prospective in nature. It assumes that future premiums will be received on universal life and, interestingly, produces a deferred and uncollected (D&U) premium asset under an annual premium assumption. This asset made some actuaries stop to ask the question: "Does such an asset really exist in this kind of product?" We may see the time when the operating systems will calculate CRVM reserves because of the tax need for such reserves, but I don't think we're at that stage yet. As far as I know, and some of you may know differently, there haven't been any definitions of any other modified preliminary-term methods for universal life. We haven't observed anybody working on an Ohio method or an Illinois method or a New Jersey method. Many of us in the universal life business intuitively view the accumulated value on a front-loaded product, or the accumulated value minus the surrender charge on a back-loaded product, as a modified preliminary term reserve somewhere between CRVM and net level. And that comment, I think, provides us a good lead-in to talking about tax reserves.

You all know that you need to compare the quantity (CRVM reserve minus its associated D&U premium) against the cash value to set up tax reserves. Many companies have found that the cash values end up being the tax reserves. And one of the more interesting tax issues

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these days is the old 818(c) election for calendar years up through 1983. Different companies have taken different positions on that. For example, we know of companies that have elected 818(c) in conjunction with only the CRVM portion of the total universal life statutory reserve. Some of those companies segmented the total statutory reserve on universal life in the statutory statement, putting the CRVM portion into the Annual Statement Exhibit 8, Section A, and the excess of the cash value over the CRVM reserve back in Exhibit 8, Section G. Whatever was done, the companies are now in the position of having to defend their positions with the IRS. Viewing the universal life reserves as clearly modified preliminary term reserves, the basic question may turn out to be whether the method that was used by most of the universal life writers, especially prior to the time that CRVM was defined, constituted a recognized modified preliminary-term method.

Let's move on now to GAAP reporting. You've heard quite a bit today about the Academy white paper that wound its way to the AICPA, and then to FASE, which is planning an exposure draft on universal life GAAP accounting. The Academy recommendation was for the composite method of accounting coupled with an amortization of the accounting loss on internal policies rolled over into universal life. As far as operating systems go, I don't know of any that, at the moment, are calculating GAAP reserves. The accounting isn't resolved yet, so operating system modifications to do that may be in the future.

There are several accounting issues that would pertain to GAAP accounting for universal life no matter what method was chosen. Certainly, we would all set up a deferred policy acquisition asset and, in connection with that, the use of an actual-to-assumed ratio on DAC is probably wise. From the general standpoint of the accounting rules, it is prudent to make sure that you don't capitalize more than is actually spent. Those of us who have internal rollovers, and who have replacement rules governing those rollovers, may find that not all of the commissions contemplated in the pricing structure are expensed. The use of the actual-to-assumed ratio calculation keeps us close to the facts.

Rollovers and lump sums are important issues for universal life accounting. Outside lump sums are hard to track. Internal rollover amounts are supposedly easier, but with respect to either one, FASEB may limit the release of profits as a percentage of premiums. We must find some way to comply with that requirement.

Let's think about increases in coverage, which are a normal thing. When we sell universal life, we don't expect to sell Joe Doakes, our favorite policyholder, seven different policies. We expect to sell him one. We expect the coverage to go up and down and the premiums to go up and down. That's the normal thing. When increases in coverage occur, we think it is appropriate to capitalize and amortize any nonlevel commissions paid as a result, assuming, of course, that they are recoverable. As a side note, you will want to assure that your administrative system provides the information that is needed with respect to increases in coverage.

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Your company may install aftermarket changes to the product. Lincoln National has been known to add some commissions to policies already in force. Sometimes this levels the playing field, and may prevent rolling one universal life product over to another. From an accounting point of view, you will need to address how you'll handle aftermarket commissions. These commissions may be expensed as they come due, or if they are recoverable, perhaps they can be capitalized and amortized. If so, you will need to figure out how you'll do it. For example, will you do it outside the regular GAAP reserving system, or by changing GAAP factors?

Changes in the cost of insurance rates and the interest margin are to be expected. That's a big part of running the business after the policies are issued. The key aspect is to make sure that nothing happens that impugns the integrity of your GAAP reserves. In particular, if you are releasing part of your interest margin through the GAAP reserving system as a level percent of premiums, you will want to make sure that the interest assumptions in your GAAP reserves are valid. Loss recognition problems are to be avoided.

Next is management reporting. If you're running the company and you're in the universal life business, what information would you like to see on your desk periodically? At our company, return on equity (ROE) is one of the key financial indicators. ROE reflects all of the profit factors at work simultaneously. So we like to see the actual return on the product. We know what we have built into the pricing structure. We know the GAAP accounting should reproduce the pricing ROEs. We look at sales and product mix. If we have front-loaded products and back-loaded products, and fixed products and variable products, is the mix coming in as anticipated? Or as we want it to? What is the source of the money coming in? How much of the money represents new money to the company? How much represents old money from rollovers?

The interest margin is monitored every month. It's the single most important item in managing the profitability of universal life. It has a tremendous effect on ROE, particularly if the interest margin is not maintained for some protracted period of time. We also look at premium patterns. The pricing structure is set up with assumptions as to first-year and renewal premium levels expressed as ratios to the first policy year minimum premium. How are premiums coming in? Are we getting the renewal premiums on universal life that we said we would get? How about policy persistency, the old classic lapse rates, how are we doing on that score? Mortality, of course, is another key profit factor to be monitored. You will want to look at any internal replacement rules which foster higher overall mortality than you priced for. Last, but not least, are unit expenses. We monitor those very carefully. Like many companies, we have an inflation adjustment included in our renewal expense factors. We track our unit costs to make sure that we're in line with those.

My comments so far have been focused on fixed universal life, as opposed to variable. But, most of the comments apply to variable universal life. If you're contemplating going into variable universal

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life, you will be entering a transactional world of substantial proportions. If you're a variable annuity writer, perhaps you have run into that. Money coming into the company must be invested within specified times. Money is going to be moved around from investment fund to investment fund by your policyholder. That's part of the contract. You need an operating system that will handle numerous transactions, so the operating system becomes a key factor as you contemplate going forward with variable universal life.

I'd like to share with you some facts about the major issues in reinsurance. The level of regulatory interest in reinsurance has increased tremendously since 1980. At that time, reinsurance was considered to be effectively unregulated at both the state and federal levels. Although the use of reinsurance as a potent financial and tax planning device was certainly not unknown ten or fifteen years ago, significant regulatory attention has been directed to it only since 1980. The reason for the significant change in the regulatory climate can be traced, in part, to a couple of recent dramatic developments.

On the federal side, the intense marketing of modified coinsurance with a Section 820 election in 1979 and 1980 and the resulting significant decrease in the total federal income taxes paid by our industry brought reinsurance to the attention of some people in Washington who were in a position to take action: people such as Senator Dole, former Treasury Secretary Regan and, ultimately, President Reagan himself. If ever there was an example of going from obscurity to intense scrutiny, modified coinsurance must be it. As you know, the election for special tax treatment of modified coinsurance was repealed under Tax Equity and Financial Responsibility Act (TEFRA). But that was only the beginning of federal attention to reinsurance.

On the state regulatory front, the most dramatic development involving reinsurance was the Baldwin-United fiasco. Baldwin was using massive reinsurance transfers between its Indiana and Arkansas companies in addition to interaffiliate investments and many other devices to build its empire. As a result, state regulators became interested in reinsurance. In addition, the property and casualty industry suffered through a number of complicated insolvencies, several of which involved fronting and the use of grandiose reinsurance schemes. Again, the result was a dramatic increase in interest in reinsurance.

How are the regulators dealing with this reinsurance concern? Let's look first at the federal side. As noted, TEFRA repealed Section 820 for tax years after 1981. It further provided that the determination of whether a reinsurance contract entered into before 1982 satisfied the Modco requirements of Section 820 would be made solely by reference to the terms of the contract. That is, it was the intent of Congress to grandfather pre-1982 Modco agreements. What we are seeing, though, as these agreements continue to turn up on audit, is that the IRS is challenging Modco agreements with respect to three bases: backdating, the use of a mean reserve adjustment interest rate higher than the company's Annual Statement Exhibit 2 rate, and the lack of sufficient risk transfer as a result of experience refund provisions, loss carry-forwards or various termination provisions. While it is our expectation

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that the IRS will not be successful in its challenges to the vast majority of Modco agreements, this remains a hotly contested issue.

Another very significant federal regulatory response to reinsurance was the adoption of Section 845 of the Internal Revenue Code. Section 845 deals both with reinsurance transactions between affiliated companies and with reinsurance transactions between unrelated companies. The latter provision has attracted the most comment and concern. If the IRS determines that a reinsurance contract has a significant tax avoidance effect on any party to the contract, it has the authority to make adjustments to one or both parties taxes to eliminate that effect. The IRS is directed to take into account the economic substance of the transaction. Further, it is stated that the motivation of the parties is wholly irrelevant in making a determination as to significant tax avoidance. The fact that a transaction has a business purpose, was not entered into with tax avoidance or evasion as a principal purpose, or was entered into at arms length will not foreclose the Treasury from examining a reinsurance transaction. The IRS has been given broad authority from Congress to examine reinsurance transactions that have significant tax avoidance effect. While there have been efforts to clarify and specify the limits of this authority through the adoption of regulations, it does not appear that any such regulations will be issued in the foreseeable future.

Let's now turn to state regulation. The state regulators have addressed and are continuing to address their concerns about life reinsurance on a variety of fronts. We'll discuss those under three headings, holding company issues, reserve credit issues and surplus relief issues.

Holding company issues--as a direct response to the Baldwin-United situation, the state insurance commissioners, through the NAIC, have substantially rewritten the NAIC Model Holding Company Statute. One of the areas subjected to extensive revision was the reinsurance portion. The previous version of this statute required an insurance company to report to the insurance commissioner any reinsurance agreement with an affiliated company that transferred all or substantially all of one or more lines of insurance of the ceding company. This was obviously not a very restrictive standard. Under the June 1985 revision of the Holding Company Model Act, current information must be filed as to all interaffiliate reinsurance agreements. There is a materiality test as to filing information about interaffiliate sales, investments, loans and other such matters, under which a transaction is material if it involves more than one-half of 1 percent of the insurer's admitted assets. But this materiality test is not specifically applicable to reinsurance agreements. Interaffiliate reinsurance transactions may not be entered into unless the insurance commissioner has received 30 days prior notice and has not disapproved the transaction. Reinsurance agreements affected are those involving 5 percent or more of the insurer's surplus. Even reinsurance agreements with nonaffiliates are included in this rule if the nonaffiliate is used as a conduit or front for an affiliate. Of course, the NAIC Model Holding Company Law is just a model at this stage. It has not yet been adopted by any of the 50

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states, so discussion of its filing and approval requirements is purely theoretical at this time.

A second area of recent state regulatory interest in reinsurance concerns the availability of reserve credit for reinsurance ceded. The NAIC adopted a Model Statute on reserve credit in 1984. This model permits reserve credit on reinsurance ceded to a reinsurer licensed or accredited in the state or that meets minimum solvency standards of the state and is licensed in a jurisdiction with a substantially similar law. Or the reinsurer can establish a trust fund in the U.S. with assets equal to its U.S. liabilities plus a trustee surplus of \$20 million. If the reinsurer does not meet these standards, reserve credit will nonetheless be available if funds are withheld by the ceding insurer or held in trust for the ceding insurer. The trust may be funded with cash, acceptable securities, a "clean irrevocable unconditional" letter of credit, or any other form of security acceptable to the insurance commissioner. Now, having said that, let's take note of some recent events.

During a recent zone examination, the examination team applied a mirror image reserving practice to reduce a ceding company's reserve credit. In a conference with representatives of the examined company, the examiners described that practice in substantially the following terms: No credit will be allowed to the ceding company unless the reinsurer has a specific line item reserve for the risk assumed. Not only that, but the reinsurer's line item reserve must match the ceding company's claimed credit to the dollar. The examiner started that they will not look beyond data contained in the annual statements of either company in order to justify the claimed reserve credit. They would not consider any explanations of nonmatching items nor will they contact the reinsurer or take action against it. Lastly, regardless of which company is responsible for a claimed reserve credit exceeding a reinsurer's line item reserve, the surplus of the company under examination will be penalized by a mirror-image adjustment. Needless to say, there is a lot of consternation over that attitude and there's been speculation as to what might be behind it. Here's some of the speculation: The current low comfort level of regulators in the aftermath of the Baldwin-United bankruptcy may be behind this. Or, in addition, perhaps it is today's relatively high incidence of failures of banks, S&Ls, securities brokers and general business bankruptcies. Or, maybe it's simply the availability through the NAIC data base of a reinsurer's reserve figures, which can be compared with reserve credits taken by a ceding company. Or, perhaps this is just the product of a tidy mind at work thinking that mirror reserving is actually a precise examining tool. We don't know exactly what's behind it, but the group trying to find out the reasons behind the regulatory rationale of mirror reserving seems to think that it is based on the assumption that the gross reserve liability for a policy must be established by a combination of the net reserve retained by the ceding company and the reserve posted by the reinsurer. It is then said that it is the ceding company's responsibility to see that its net reserve plus the reserve posted by the reinsurer add up to the gross reserve required by the policy contract. This has elicited a lot of response and consternation, and I think probably the

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Academy Committee on Financial Reporting Principles will be requested to put this on its agenda.

I'd like to call your attention to the Academy's Recommendation No. 4 that covers GAAP accounting, and quote a portion of it. Recommendation 4 says,

In particular, there is no necessary relationship between the reinsurance reserve adjustment of the reinsured company and the reserve for the reinsurance accepted established by the reinsurer (except in the case of affiliated companies filing consolidated statements).

Many of the reasons for adopting this position for GAAP accounting would also appear to hold for statutory accounting.

The third area of state regulation concerns surplus relief. This is currently the topic of the most intense regulatory interest in the life reinsurance area. Surplus relief is the most common type of financial reinsurance. The main objective of conventional reinsurance is to pass along the risk the direct writing company would otherwise have. In contrast, the objective of financial reinsurance is to meet corporate planning goals or to take advantage of specific economic opportunities. New York adopted a surplus relief regulation, Regulation 102, effective March 15, 1985. This regulation denies reserve credit for reinsurance agreements entered into for the principal purpose of producing significant surplus aid for the ceding insurer, typically on a temporary basis, while transferring little or no risk to the reinsurer. A list of objectionable contract provisions and conditions is provided. There is also a requirement, the most troublesome one in my opinion, that the reserve credit taken by the ceding company cannot exceed the actuarial reserve necessary to support the policy obligations transferred under the reinsurance agreement. Since New York promulgated Regulation 102, other states such as California, Wisconsin and Illinois have begun to move in a similar direction. In fact, the NAIC is currently debating adoption of a model surplus relief regulation to be finalized and adopted at its December 1985 meeting. The NAIC model regulation is very similar to the New York version. Like New York, the model regulation would apply to all licensed companies, not just domestics. It would provide for a three year phase-out of existing surplus relief reinsurance agreements that violate the terms of the regulation. The one additional condition provided for in the most recent draft of the NAIC model requires surplus relief to be paid solely out of future profits on the block of business reinsured. We at Lincoln National support this additional condition.

California, in addition to spearheading the efforts to develop an NAIC model regulation, has proposed a unique accounting approach to the evaluation of surplus relief reinsurance. Commissioner Bunner of that state suggests a simple objective test to determine if any significant risk has been transferred to the reinsurer. If the reinsurance agreement effectively limits any ultimate loss to the reinsurer to an amount equal to the reinsurance premiums plus interest at a market rate plus 5 percent, then it will be deemed that no risk has been transferred. A

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second condition of Commissioner Brunner's proposal would disqualify reinsurance agreements that delay reimbursement from the reinsurer to the ceding company for covered losses or expenses by more than one year. Such delayed balances may qualify as admitted assets, however, if they accrue interest and are properly secured.

In the meantime, not to be outdone by the accountants and lawyers, the actuarial profession has gotten involved. There are many participants in the current regulatory debate on surplus relief, including Lincoln National, who believe that only actuaries can decide how to effectively regulate reinsurance on more than an interim basis. The real solutions, we believe, lie within the concept of the valuation actuary and the development of guidelines on how risks and reserve liabilities can be apportioned between the ceding company and the reinsurer. These rules and their theoretical underpinnings have not yet been developed. In the meantime, the attorneys and accountants will continue to struggle with interim and imprecise solutions. However, I urge you not to give them too long to play with financial reinsurance, or you may not recognize it when you get it back.

To wind down this discussion on reinsurance, I want to just say a word about self-administered reinsurance. Reinsurance treaties, as we know, are negotiated agreements. For many years, the primary area of negotiation for most companies was price. Reinsurers traditionally performed the administrative functions associated with the business based on information transmitted on individual cessions. Times have changed. There has been a great development of self-administered reinsurance in recent years. These self-administered arrangements have generally resulted in lower costs for reinsurers and, consequently, in lower reinsurance rates. For ceding companies, increased administrative costs have tended to offset the reinsurance rate decreases. Self-administered companies have gained a significant amount of control over reinsurance processing but they have also assumed a greater responsibility for its accuracy and timeliness. And this, of course, affects the ceding companies' financial reporting. The purpose of the March 1985 Exposure Draft on Guidelines for the Reporting of Self-Administered Reinsurance put out by the Reinsurance Section of the Society of Actuaries, was to clarify this reporting. Self-administered reinsurance offers potential cost savings, but it also puts more responsibility on the ceding company and the reinsurer for the viability and the accuracy of the results.

MR. JAN L. POLLNOW: The discussion of how sensible professionals do asset/liability matching needs to be taken a step further to how sensible professionals will develop modified guaranteed annuities.

Most of you are familiar with the GICs sold in the group pension business. Surrender values on these products are based on a market-value adjustment formula. Although accounted for differently, the basic modified guaranteed annuity product, or MGA, is simply a guaranteed investment contract for individuals. It provides for a guaranteed maturity value, or perhaps it's better to say that it provides for a guaranteed return of principal with guaranteed interest payments. These guaranteed payments could be simple interest payments at the

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end of each year, or some other specified period of time, or they could be compound interest payments with the accumulation due at the end of the maturity period.

For example, you could have a \$10,000 single premium product that guarantees to pay 10 percent simple interest, or \$1,000 at the end of each year, and then returns the principal along with the last interest payment at the end of five years. Alternatively, you could guarantee that the 10 percent would compound so the final payment would be the \$10,000 plus \$6,100 of compound interest. Even under the simple-interest approach, you could compound the interest, but at a new guaranteed rate which would be determined at the time each interest payment is due.

Now this may sound like a run-of-the-mill SPDA. The difference is that, if the individual wishes to withdraw his money from the GIC plan before the end of the guarantee period, the amount he will receive will be adjusted to an approximate market value. This is done by means of a formula which is specified in the contract. The idea, of course, is to protect the company from the interest-change risk, which is commonly known as the C-3 risk.

Is this a fixed contract or a variable contract? It actually seems to be a hybrid because it does contain some elements of a variable contract, such as the adjustment to market value. However, the cash-out value is not unitized, it is determined by formula. In addition, there is a guaranteed maturity value, just like a basic fixed contract. These similarities and differences obviously lead to the question of how to account for this new product. I will discuss that after a brief diversion to update you on the current statutory status of this type of product.

This type of contract can be sold today, but only by using a group contract. Because of the individual nonforfeiture laws, it cannot be sold as an individual contract. This past June, the NAIC adopted a model regulation for a modified guaranteed annuity. This model regulation is based on the variable annuity regulation and allows for the sale of MGAs on an individual basis. Some of the highlights of the regulation are the following:

1. The assets are to be placed in a separate account.
2. Nonforfeiture values are not unitized. In other words, they are not tied directly to the assets of the separate account, but instead are based on a market-value adjustment formula. This formula may, or may not, be related to the assets of the separate account. This means the insurer retains the asset default risk, but has the opportunity to virtually eliminate the interest-change risk.
3. The assets backing the MGA are valued at market. I might note here that Connecticut has already approved valuing assets at market for the group product we are now selling.

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4. The statutory reserves should recognize that assets are at market, and should at least equal the market adjusted surrender value. If handled properly, this will provide some indication of the proper matching of assets and liabilities, and could be the first step in forming the actuary's opinion on the adequacy of the assets to support future benefits.
5. In order to sell MGAs, an agent must be licensed to sell variable annuities.

At the present time, I don't know that any of the states have adopted the model regulation, but I do know that New York has passed legislation allowing MGA sales on an individual basis. In that case, rather than adopting a regulation, the state actually changed its nonforfeiture law. This legislation is very similar to the model regulation, with a few exceptions such as

1. allowing assets to be placed in either a separate account or the general account,
2. requiring an unadjusted surrender value at least every 10 years, and
3. requiring a maximum 10 percent surrender charge that must grade to zero over not more than 10 years.

Four task forces have been formed to help the New York Department of Insurance write regulations to interpret this new law. They expect to complete their work by the end of the year. This should be helpful in understanding the new accounting concepts associated with this product.

In the absence of adoption of the model regulation, my interpretation of current statutory accounting for this product is that both the assets and liabilities should be valued at book value. For the assets, this means amortized cost. That, of course, assumes investment in bonds, which does seem to be the logical investment for this type of product.

Reserves would, of course, be calculated using CARVM, which basically means discounting future guaranteed benefits for each duration and choosing the highest present value. Strict application of this method will cause a problem if, for instance, a change in the market results in an increase in surrender values to where they are considerably above the asset values, which are at book. The decrease in surplus could be substantial.

As with some of the other new products, there will be obvious questions as to whether current GAAP guidelines are appropriate. FASB 60 indicates that investments in separate accounts shall be reported at market, except for separate account contracts with guaranteed investment returns. Investments for this type of contract are to be reported at amortized cost. Thus, GAAP accounting could be interpreted as being consistent with statutory accounting, which, as we now know, has been changed.

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Book value accounting produces stability. In other words, neither the assets nor the liabilities will fluctuate with the interest markets, and this will then result in stable earnings and stable surplus as long as the contracts stay in force.

On the other hand, this approach does not give any indication of whether the assets and liabilities are properly matched, or even closely matched. This has certainly been brought home over the last few years when many companies had long-term assets that were considerably underwater and their liabilities were becoming shorter and, in fact, going out the door. Companies just didn't go insolvent when this happened because the statutory and GAAP accounting disguised the underlying problem. One could argue that a good reason to continue the current accounting is that it gave companies a chance to recover, but I would submit that, in the long run, it is not beneficial for the industry, the stockholders, or the policyholders. Why kid ourselves?

Let's go on to the new accounting. The model regulation indicates that assets should be valued at market and that liabilities should be on a basis consistent with the assets or, to put it another way, that recognizes that the assets are being valued at market. Then if there are mismatches between the assets and liabilities, their present value will be recognized immediately as either an increase or a decrease in statutory surplus. One of the questions will be about whether or not this mismatch gain or loss should be allowed to affect earnings. One possibility would be to determine net income, using the excess investment income plus contract fees, surrender charges and a deduction for expenses. Other changes in surplus could be left in the separate account. This would produce a result similar to current statutory accounting, in which capital gains or losses do not affect net income, but instead go directly to surplus.

Alternatively, all changes in surplus could be reported as net income. This could mean fluctuating earnings, but that might provide a good deal of incentive for people in the investment department to take a hard look at their investment strategy and to strive for proper matching. This approach should certainly be used for GAAP accounting where realized gains and losses already affect net income, and it could also be used for statutory accounting.

Deciding on how to report the earnings seems like a philosophical problem rather than a major theoretical one. However, the valuation of reserves should generate some interesting actuarial deliberations. It would seem that the valuation of assets at market should be fairly easy and straightforward unless there are unusual types of investments that do not have easily obtainable market values, like private placements. Liabilities, on the other hand, are not actively traded in the marketplace and I'm sure we can come up with several acceptable methods for reserving them.

Probably the simplest approach to valuing the liabilities would be to use the market-value adjustment formula specified in the contract for determining the cash surrender value for early withdrawals. This formula should account for all future benefits and should provide a reasonable

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approximation of the market value. If it doesn't, the model regulation indicates that the contract should not be approved.

One problem is that a simple formula may not be perfect, and this could cause earnings fluctuations. For example, we could have a formula similar to the one shown. (See Exhibit 3.) This formula is applied to the accumulated account value. It recognizes all future guaranteed benefits as well as the change in the interest market since the time the guarantee was made.

EXHIBIT 3

MARKET VALUE FORMULA

$$100\% + 75\% \times [I' - I] \times \frac{M^*}{12}$$

where I' = Guaranteed Rate

I = Current Rate

M = Months to Maturity

* For $M \geq 48$, this becomes $\frac{\frac{M}{2} + 24}{12}$

A couple of numerical examples will illustrate the relationship of the theoretically correct market values to values produced by this formula. The examples I have chosen (See Exhibits 4 and 5) assume that each year's interest credits will be reinvested at the new guaranteed rate, the new-money rate, for that year. Over a five-year period, under each scenario, there are differences between a theoretically correct market value and the formula value.

EXHIBIT 4

Duration	New Money Rate	Average Credited Rate	Account Value	True Market Value	Formula Value	True vs. Formula	Effect on Earnings
1	10%	10.0%	1,100	1,039	1,034	5	5
2	12	10.2	1,212	1,114	1,108	6	1
3	14	10.5	1,340	1,252	1,250	2	-4
4	15	11.0	1,487	1,428	1,430	-2	-4
5	16	11.5	1,657	1,657	1,657	0	2

EXHIBIT 5

Duration	New Money Rate	Average Credited Rate	Account Value	True Market Value	Formula Value	True vs. Formula	Effect on Earnings
1	10%	10.0%	1,100	1,132	1,133	-1	-1
2	9	9.9	1,209	1,263	1,261	2	3
3	8	9.7	1,327	1,387	1,381	6	4
4	7	9.5	1,453	1,496	1,491	5	-1
5	6	9.2	1,586	1,586	1,586	0	-5

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This, of course, will lead to earnings fluctuations, which eventually wash, but do cause a change in the incidence of the earnings even when a contract remains in force and, in theory, should not be impacted by the adjustment formula. This formula actually works quite well and these are somewhat extreme scenarios. However, it might be preferable to recognize differences between the formula and the actual market only when a surrender actually occurs.

A more theoretically correct approach would be to use something called a hypothetical portfolio. (See Exhibit 6.) A hypothetical portfolio simply means that one tries to match up the cash flow from a hypothetical asset with each future benefit or cash outflow. These outflows can be defined as only the actual benefits, or they may include future expenses and profits. They do not need to recognize persistency since the market value cash-out should adjust for surrenders automatically.

EXHIBIT 6

WHAT IS A HYPOTHETICAL PORTFOLIO?

Anticipated Cash Outflows

	<u>1</u>	<u>2</u>	<u>3</u>
Policy #1			15,000
Policy #2	<u>1,000</u>	<u>1,000</u>	<u>11,000</u>
	1,000	1,000	26,000

Hypothetical Assets

1. Three-year zero coupon bond maturing for \$15,000
2. A three-year annual coupon bond maturing for \$11,000 (including final interest payment)

Market value of hypothetical portfolio determines the reserve.

The hypothetical assets chosen may, or may not, have coupons. If so, one simply uses them, along with the maturity values, to match cash outflows at whatever point they occur. Once all cash outflows have been matched with hypothetical assets, the reserve is simply the market value of the hypothetical assets. If an actual portfolio happens to be identical to the hypothetical portfolio, cash flows will be perfectly matched and assets will exactly equal liabilities. If one wants profits to emerge in the future, one can simply increase the cash outflows at each duration. The new hypothetical portfolio will then throw off the right amount of cash to release the profit at that point.

In the U.K., it is my understanding that insurance companies are limited to investing in gilts, the U.K. equivalent of our Treasuries. Thus, it is quite easy to determine a hypothetical portfolio since one knows what one will be investing in. In this country, we have more of a problem because we can invest in a lot of different types and grades of bonds. Certainly, we wouldn't want to base hypothetical portfolios

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on Treasury Bonds when we are investing in junk bonds. The junk bonds will no doubt have a higher yield, and even though cash flows are perfectly matched, using the lower yielding Treasuries to determine reserves will naturally cause the reserves to exceed the market value of the assets.

One way to set up a quasi-hypothetical portfolio is to look at the bonds in your actual portfolio and utilize those to determine a hypothetical portfolio. Of course, you will only use those at durations where there are cash outflows. If you are missing bonds at some durations, perhaps you can check the market for investments similar to those you normally utilize. The present value of this hypothetical portfolio should produce reasonable reserves in relation to the types of investments you have made.

Another interesting problem that is going to occur, because of the market valuation of modified guaranteed annuities, is an inconsistency with tax reserves. This product does not appear to qualify for segregated account treatment under Section 817 because the account is not unitized and the benefits paid out are not directly affected by the investment return and the market value of the assets. This means the MGA could be taxed as a general account product. As you probably know, the tax reserve is the greater of the federally prescribed reserve (CARVM) and the net cash surrender value defined without a market-value adjustment. At the same time, the tax reserve cannot be greater than the annual statement reserve. Thus, when market values are depressed, the annual statement reserve, which is at market, will be lower than the calculated tax reserve, which is at book. This annual statement reserve will then act as a cap for the tax reserve. The result is that taxable income will be greatly in excess of statutory income. This will, of course, later reverse, but the damage has been done because the additional tax causes additional surplus drain that must be considered in pricing, at least for stock companies. It appears this inconsistency can be eliminated only by a legislative change defining specific tax accounting for modified guaranteed annuities.

In my opinion, MGAs and a similar product for life insurance are the products of the future. They allow companies to judiciously provide a guaranteed benefit without having to worry about, or provide for, a significant C-3 risk. If, as the president of our company says: "Guaranteed cash values are suicidal," then this product could be the savior.

MR. RALPH H. GOEBEL: Mr. Bechtold, I have a question applicable to both variable universal life and variable annuities that are back-loaded. In both of these instances, I believe you have to make sure the entire accumulation value is invested in the unit investment trust or what-have-you. How do you handle statutory accounting to avoid a horrible surplus drain?

MR. BECHTOLD: I think you can actually take your surrender charge offset for your variable annuity. This would give you a gain in your separate account statement which would be transferred over to the change in surplus account of your general account statement. So, even

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though the SEC requires you to hold full accumulation value in a separate account, I think, for statutory valuation, you could take the surrender charge offset.

MR. POLLNOW: Is it true that the SEC requires you to hold the entire account value in a separate account?

MR. BECHTOLD: To my knowledge, that's true.

MR. POLLNOW: I think you have an interesting pricing problem then, because even if you take credit for surrender charges in a separate account, you've tied up some assets in that account and you have to think a little bit about whether or not you want to consider that in your pricing.

MR. PAUL H. LE FEVRE: Mr. Bechtold, there seems to be quite a trend towards using Macaulay durations for legislative and regulatory determination of whether or not assets and liabilities are matched. It appears to me that to put a single number on the duration of the liabilities is not only impossible, but dangerous. On the regulatory front, what kind of definitions and guidelines are being used for determining durations of liabilities?

MR. BECHTOLD: I agree with you that use of the Macaulay duration for either assets or liabilities is probably not the best method of determining whether or not assets and liabilities are matched. I still believe scenario testing of future interest-rate patterns is a better method for determining the extent of asset/liability matching. Your question relates to what the duration means for liabilities. The task force put together by the New York Insurance Department, to produce regulations for the new annuity law in New York, is grappling with that question right now and I hope they will have an answer to your question in the near future.

MR. LE FEVRE: It just seems to be a very dangerous trend to put those concepts in the hands of the regulators and then to have to sign a statement that your asset and liability durations are within x years of each other, when you know that, under certain assumptions, they could be all over the ballpark.

MR. BECHTOLD: Exactly. Under different future interest-rate scenarios, those durations would change. I agree that it's a dangerous precedent to set.

