

**1994 VALUATION ACTUARY
SYMPOSIUM PROCEEDINGS**

SESSION 14

GAAP Issues/Fair Value Financial Reporting

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GAAP ISSUES/FAIR VALUE FINANCIAL REPORTING

MR. GLEN M. GAMMILL: Our first speaker will be Dave Ficca. He's with Coopers & Lybrand in Washington, DC. He has been there for over ten years. Dave spends virtually all of his time in the insurance industry. He's in the business assurance department.

Jim Hohmann is with Tillinghast. Jim is conversant in virtually all phases of financial reporting and is currently the Chairperson of a Joint Actuarial Task Force on the Fair Value of Liabilities.

Brad Smith is with Milliman & Robertson (M&R) in the Dallas office. Brad is conversant in virtually all phases of insurance actuarial practice. Brad will be addressing certain matters related to purchase GAAP. Accounting Practices Bulletin No. 16 used to be the only authoritative literature, but now there is a new Emerging Issues Task Force that focuses on purchase GAAP for the insurance industry.

Steve White is the valuation actuary at Provident Mutual. Steve was, most notably, the Chairperson of the American Academy's task force that assisted the AICPA's Insurance Companies Committee's Task Force in developing a statement of position (SOP) for the mutual industry for participating individual insurance. Steve did a yeoman's job and deserves a lot of the credit for the work that was done by actuaries for that committee. Steve will obviously be spending his time on certain aspects of GAAP for mutuals.

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MR. DAVID K. FICCA: I wanted to get into some of the recent pronouncements that are out there, particularly the ones that will interface with some of the things that you're doing. I'll touch briefly on some of the other topics, but I'm basically going to focus on some of the latest pronouncements beginning with *Financial Accounting Standard (FAS) 115*.

For those of you aren't aware of *FAS 115*, it's called "Accounting For Certain Investments in Debt and Equity Securities." *FAS 115* is basically designed to analyze the way that investments should be shown on the financial statements. The FASB basically set up three categories or classifications for investments in equity securities and debt securities.

The first classification is the classification of investments held to maturity. This is analogous to what most insurance companies do on a statutory basis for these types of investments. Held to maturity implies that we have the ability and the intent to hold securities until their maturity date. The accounting for these types of securities is going to be your cost basis amortized to the maturity date. That really doesn't create much of a change for those types of securities.

The next classification is the trading portfolio. These are securities where the company acknowledges that basically it is investing in these securities to generate gains or losses -- gains primarily for income purposes, losses for tax purposes based on the short-term fluctuations of securities. Your trading portfolio is going to turn over quite a bit, and basically it's not assets that are set up so much as a match (against liabilities), but they're assets that are purchased basically to generate gains or losses.

The final category is basically everything else, which is the available-for-sale category. The critical thing that *FAS 115* did in these three categories is it said you're going

to account for these in very different ways. As I mentioned in the held-to-maturity classification, you're accounting for something on amortized cost; so what will go through your income statement is basically going to be your investment income and the amortization.

On the trading portfolio, you're treating that basically as a portfolio to generate gains or losses so at each balance sheet date you're going to mark those assets to market, and that marking to market is going to be treated as a realized gain or loss; meaning that in the income statement you're going to have realized income, realized loss as if you have sold it.

Finally, for the assets available for sale, the treatment there is a little different. This is really the new area. Because these assets are considered available for sale, you're going to mark those assets to market. However, you're not going to put the fluctuations in their value through the income statement. They're basically going to be a direct adjustment in the equity section. You'll see a separate line item in the financial statements for unrealized appreciation in investments. That will be shown on the net of tax.

FAS 115 forced companies to deal with the fact that in a lot of cases they weren't holding their investments to a maturity date. They truly were trading them, and in some cases they weren't holding them as the match against their liabilities. They were trading them early for various reasons.

One of the things to remember about this is that, once you get these assets into these classifications, it's very restrictive to move things out, particularly out of the held-to-maturity category. Transferring an investment out of the held-to-maturity category can, from an audit perspective and a financial statement perspective, and certainly from an SEC perspective, taint the rest of the investments held in that category.

What I mean by that is that the more transfers that you have, the more sales you have out of the held-to-maturity category before the maturity date will taint the rest of the classification and force you to justify why the rest of those securities should be held in the held-to-maturity category. There are certain circumstances where you are allowed to take things out of the held-to-maturity category without necessarily tainting the rest of the securities in that bucket or that classification. I'll give you some examples.

The following are situations in which a security in the held-to-maturity classification can be sold or transferred into the available-for-sale category basically by changing the accounting model for it:

- If there's a significant deterioration in the creditworthiness of the investee.
- If the security loses its tax-exempt status.
- If major business combinations or dispositions occur where you need to sell securities in order to affect that transaction.
- If the regulators change minimum capital requirements.
- If investment limitations in a particular state require that you sell the security because you're too highly concentrated in a certain investment.

In addition, for debt securities only, you're also allowed to sell a held-to-maturity asset if it's getting very close to the maturity date; within three months, for instance, under the concept that it has almost reached the same value as at maturity. In addition, if you've received a substantial portion of the principal, if it's a type of security that pays you principal over time, you're allowed to sell a held-to-maturity asset.

There are some exceptions, but I think the important thing to note is, once you get these assets into their classifications, it's critical to have policies and procedures that keep them there or meet the justifications for moving them out. One thing to note here, just for those of you who haven't gone through the implementation process in

FAS 115, is that most studies are suggesting that 80-85% of the assets in insurance company portfolios are being treated as available for sale. Companies that adopted as of December 31, 1993, or adopted in the first quarter, for the most part, are putting securities in available for sale because there's not a lot of penalty there in terms of moving it out. It's sitting in the available-for-sale category. You don't have to recognize realized gains or losses to the profit and loss, and you don't have these restrictive barriers to selling a security and tainting the whole rest of your portfolio.

There's one thing you should be aware of in terms of SEC guidance. Back in December 1993 or January 1994, there was a meeting with the SEC where the SEC was dealing with this whole issue of marking assets to market, particularly the assets in the available-for-sale category. You haven't sold these assets, yet you have actually recognized an unrealized gain. The question was raised that, if you're going to be recognizing unrealized gains or losses in your balance sheet, that could potentially affect other accounts. You also have the present value of future profits on your balance sheet. It could affect some policyholder liabilities where, in the event of a realized gain, some of that benefit would enure that to contract.

Marking these assets to market on an unrealized basis creates changes in various other balance-sheet accounts. The SEC is basically taking the position that you should recognize the impact of that as if the transaction was a realized transaction. There will be adjustments in the deferred acquisition cost balance, the present value of profits, and some policyholder liabilities related to the fact that you're marking a certain set of assets to market.

Some of you might have to meet the asset/liability matching tests (regulatory filings) -- the seven criteria, for instance, that New York forces you to analyze. If so, my view is that in doing your scenarios, if you're treating a security that's in the held-to-maturity category as something that, under certain scenarios, would be sold before maturity, that that brings to bear a question as to whether the security actually

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belongs in the held-to-maturity category. So there is some crossover between what you're doing in your asset/liability matching for filings and what you're doing on the accounting basis for the method of classifying those assets.

The effective date on *FAS 115* was 1994. For mutual companies that are looking at GAAP down the road, there's still some question as to which date it is that you could adopt it. Some people say you could adopt it in 1994. It does have to be adopted on a prospective basis, but some people have taken the position that you can adopt it in the year that the new GAAP for mutuals guidelines are in effect.

In the mortgage loan area, the key or significant development has been *FAS 114*, which deals with accounting by creditors for impairment of a loan. Basically, what *FAS 114* requires is that, for an impaired or restructured loan, you evaluate it on a discounted basis in terms of dealing with whether or not the credit is impaired and the loan needs to be written down. The impairment definitions are in the FASB pronouncement. I won't go through them all. Basically, in the event that you have a loan that's either considered to be impaired or restructured based on the *FAS 114* definitions, you have to go through a present-value, cash-flow analysis to determine whether or not there has been impairment to that loan and whether that loan needs to be written down.

This can have a particular effect on your valuation reserves and more so even for the mutual companies that are maybe coming from a statutory environment where mortgage loan and real estate accounting guidance isn't as clear as GAAP. So you may have a bit more work to do in terms of the discounting analysis than you would have had under a statutory model.

Most of you are probably aware of *FAS 113*. I'll just discuss that briefly. *FAS 113* dealt with accounting for reinsurance contracts. Basically, it had two elements to it. One was that you had to gross up the balance sheet to reflect the gross balance of

reinsurance receivables, or prepaid reinsurance, and this was just to give the financial statement reader a better understanding of your gross exposure to reinsurance recoverables, and so on.

The second phase of that, and statutory is sort of moving with GAAP on this, is there are some more stringent rules as to what satisfies the risk transfer requirements and what can be accounted for as a reinsurance contract; it just solidifies the type of risk transfer analysis under which you need to look at all your reinsurance contracts. That statement was adopted at the end of 1993. Again, people who are doing GAAP for the first time obviously will have to adopt it on a going-forward basis.

I'll just touch quickly on some other areas. There has been a great deal of activity in the compensation area, both on stock options and employee stock ownership plans. On the stock options, basically what the FASB is calling for is some recognition of the value of those options at the date that they're granted. It's a very complicated proposal. I believe the proposal received 1,700 comment letters on its first go-around, so there's still some discussion to go there. It could have a very significant effect on companies that use stock options as a major compensation vehicle.

There are also some GAAP-related requirements that tie into some of the new state requirements. Basically, you should be aware of the fact that there are some discussions over what the appropriate disclosures for risk-based capital need to be on a going-forward basis. That's still being discussed, but there is some talk that you'll need to be doing disclosures on your risk-based capital level, particularly if you are below certain limitations.

Then there's also some guidance regarding how accountants should be dealing with your state regulators and what sort of communications satisfy as audit evidence for positions that you're taking on both a statutory and a GAAP basis to a certain extent.

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I'd be happy to expand on any of these later on, but basically those are some of the items that are happening in the GAAP environment.

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MR. JAMES E. HOHMANN: I'm from Tillinghast in Chicago, and I will be speaking about the fair valuation of liabilities. Even though I am the Chairperson of an Academy task force dealing with the fair value issue, I am not speaking on behalf of the Academy, the task force, or any of its members. Instead, I am speaking on a personal basis. I will draw upon information from the task force and the progress that we are making, but I am not at this meeting in an official capacity.

Some history on the task force would be helpful. The task force dates from January 1994, but there was actually significant activity that preceded its formation. In 1993, the Committee on Life Insurance Financial Reporting (COLIFR) of the American Academy of Actuaries, drafted a letter to the FASB in response to exposure draft 119-A. The exposure draft 119-A was the precursor of *FAS 115*, and the COLIFR concluded that the one-sided aspect of the accounting was inappropriate and, therefore, drafted a letter indicating a preference for consistency on the balance sheet.

COLIFR basically put a stake in the ground and indicated that consistency on the balance sheet was most important. Furthermore, COLIFR offered to do some work to help to develop techniques for fair valuing liabilities.

As it turned out, however, *FAS 115* was adopted. Furthermore, it was adopted in a form that does not address liabilities. Essentially, the FASB declined COLIFR's offer to study the fair value issue. Nonetheless, the Academy leadership concluded that a project was worthwhile, and I was asked to chair the task force.

We began in January 1994. Our objective was straightforward. We were attempting to take a clean sheet of paper and address the issue of fair valuation of liabilities. It is perhaps a bit parochial, but we did not want to get involved in the discussion of how one would retrofit a fair valuation of liabilities method into the existing GAAP

literature. We realized that, if one were to ever do such a thing, one would have to address the existing literature; but our charge was narrow in scope, so we took almost an academic approach to the study of fair valuation of liabilities.

Our method of delivery is going to be a white paper. It is in draft form now. It is quite a substantial document. Basically, we are striving to develop qualitative balance sheets for the various methodologies that we have identified as having potential to fair value liabilities. We have a number of numerical examples, and I'll discuss all of that in a bit.

The task force is organized into subgroups. Specifically, we formed an appraisal subgroup, an option pricing subgroup, and a secondary market subgroup. We had hoped that perhaps the reinsurance market would provide useful data. However, that market did not prove to be "thick" enough, and we subsequently disbanded the secondary markets subgroup and reassigned those individuals.

Let's discuss the actuarial appraisal methodology. Basically, an actuarial appraisal values a bundle of assets and liabilities. The idea is to value the bundle of assets and liabilities, adjust for the fair value of the assets in the bundle, and define the fair value of liabilities as the residual.

An interesting point arises with respect to this methodology. Recall that earlier I mentioned that COLIFR issued a letter to the FASB when exposure draft 119-A was issued. Subsequently, a couple of COLIFR members testified before the FASB. During the testimony, a question was raised regarding the dependency of liability values upon the underlying assets. The FASB seemed very troubled with the idea that the value of insurance company liabilities could depend upon the particular portfolio of assets in support thereof.

Therefore, one can expect that the FASB will be skeptical of actuarial appraisal methods to fair value liabilities.

Earlier I mentioned the development of qualitative balance sheets, and one of the advantages of using an actuarial appraisal method is that it is probably the one that would be most familiar to financial actuaries. Moreover, it is anchored in a strong body of literature that has been developed by members of our profession.

The method also could leverage existing models. Cash-flow-testing model development for regulatory purposes is a substantial task. Presumably, some of the models could be leveraged. Moreover, other projection models are developed for a variety of purposes, and perhaps they could be adapted for fair value purposes.

Beyond pure actuarial appraisals, the subgroup studied what we call current assumption methods. The idea here is that we may be able to get accurate enough information and not burden ourselves with going through full appraisal computations.

One of the methods that we have cited is simply to revalue GAAP book reserves taking into account current market interest rates. Another possibility would be to compute a gross premium reserve using current market interest rates. Now, obviously, these are two very different vehicles, and they would have very different earnings implications if they were ever used for a reporting purpose. Again, however, our charge has been fairly narrow.

Another idea developed by a couple members, is to use a ratio technique. Specifically, the ratio of fair value of assets to book value of assets would be applied to the book value of liabilities. The particular assets included in the computations would be determined from a cash-flow-testing model. Again, the hope is that this method might be accurate enough to be useful. It has a practical advantage of leveraging cash-flow testing.

Option pricing is another area we studied. It definitely has complex theory, and it also has some limiting assumptions.

Classical option pricing assumes that you have very efficient markets. Interestingly enough, the absence of these markets is part of our problem. Consistently, it assumes arbitrage-free interest scenarios among other things. We do, however, think that it could have good application in this case. The interesting thing about option pricing is that it will allow a certain amount of decoupling between the assets and liabilities which, as I mentioned earlier, was an area where the FASB was very concerned.

The idea here is that you would presumably link credited rates on interest-sensitive products to some kind of an index; perhaps constrained by portfolio returns, but primarily driven by market conditions.

During our investigation we looked at lattice-based models. We also looked at scenario-based models. Beyond that, we looked at items such as discounting spreads or rates, as well as the policyholder and company behavior functions that are needed not only for option pricing, but also for appraisal methods.

Concerning option pricing, a fundamental item is the binomial lattice. Typically, it is a closed lattice. I'm sure all of you have seen them. They begin with an origin node and emanate with rates moving either up or down as you move forward. The first point spawns two and then each of those spawns two more, and so on. If the lattice is closed, the graph resembles a set of diamonds emanating off to the right.

One of the nice things about these lattices is that they simplify the mathematics a little bit. One of the negatives is that there are multiple paths to the same point out there in the future. As a result, lattice models are not very good if the cash flows are path dependent. If the behavior of the liabilities you're trying to value would be

affected by how you actually got out to that point, whether interest rates went down and up or up and down, or some combination thereof, the binomial lattice breaks down.

To remedy that problem we explored something a little more general: scenario-based models. The idea here is to develop arbitrage-free interest scenarios. These work well for path dependent cash flows because each scenario is a unique path. Projections are made over these multiple interest scenarios. We depict the behavior of the cash flows in each of the scenarios, and then we discount them at some option-adjusted interest spread. Similar to binomial lattices, scenario-based models are also very computation intensive; that, presumably, is a drawback; but it is needed in order to get any useful information out of the models.

On the topic of discounting spreads, we explored a number of alternatives. The idea is to add a spread onto Treasury rates -- in this case actually 90-day rates into each future period -- and then present value the cash flows.

Now, there are many different ways that one can go about developing the spreads. One way would be to look at the cost of debt for the company. If the company had issued debt and the debt had a spread associated with it, presumably that would give us some useful information about what kind of an option-adjusted spread should be applied to the liability cash flows. Obviously, it's not directly applicable because we're not trying to value debt. We're trying to value the liabilities, the insurance liabilities. We did not feel that was the best of alternatives, but it certainly is one.

Another one is to use the option-adjusted spread associated with the assets in the company portfolio. Again, this is practical because typically those figures are available. It has limitations since we aren't really trying to value the assets. We're trying to value the liabilities, so perhaps looking at the option-adjusted spreads of assets would be inappropriate.

Another way we talked about is something we call a cost of funds approach, and this is best discussed from the perspective of a new issue. If you think about a single premium deferred annuity, for example, at issue, cash comes in the door and then some cash goes out the door in the form of commission and acquisition expense. Down the road for the particular block of issues, there will be cash that will go out the door from time to time. Investment income will come in the door, and so on. Basically, you can picture a stream of cash flows.

The cost-of-funds approach says, let's project those cash flows under the many scenarios I described earlier. Using those cash flows, one can compute an average present value using the 90-day Treasury rates from each of the particular scenarios plus some test spread. The spread would be refined until it reproduced the premium, less commission, less acquisition expense at issue.

The cost of funds approach has a fair amount of appeal because it is anchored in the projection of the particular liability under consideration. Presumably it captures market conditions, because presumably the pricing and benefits, and so on, are sensitive to the market. The drawback is that it would be difficult to apply to an in-force block of business. Even if we could agree on how to establish the initial spread, the debate would center on how we update it going forward.

The final approach we talked about was an imputed quality rating. For example, if an insurance company has a claims-paying rating from one of the rating agencies, perhaps the spreads associated with that rating in a capital market could be applied in developing option-adjusted discount rates to be used in present valuing these cash flows. That has some appeal to us as well.

Most of these items concerning policyholder and company behavior models are familiar to this audience. The idea is to model the options that are available to the policyholders: the ability to surrender at book value, to vary premium patterns on

certain products, and to utilize policy loans. These are all options that are embedded in the products. Typically, they are exercisable by the policyholders. Classical option-pricing theory would assume that the options are exercised efficiently. I believe most practitioners would agree that they are not, so we need to develop that in the modeling as well.

Crediting strategy is really a company behavior function. It is the ability of the company to vary credited rates on these products from time to time, while of course, taking into account the potential behavior of the policyholders as a result of their crediting strategies.

In order to illustrate these various options, we prepared examples in our report using a "building block" approach. Basically, we set up some models for a single premium deferred annuity and a universal life product. We began to introduce attributes of the products and behavior functions one by one, while developing different option-adjusted spreads, and then developing differing present values just so we could get a feel for the sensitivities. For example, we might initially project without interest-sensitive lapsation.

By introducing items one at a time, we could estimate the option-adjusted spread associated with the options, which in turn tells us something about their cost or fair value.

Beyond this analysis, we did a number of sensitivity tests. For example, we did computations using two different scenario generators. We also looked at the volatility of interest rates, years of projection, and the number of paths.

All of this still leaves some unresolved issues that I suspect will remain unresolved when we finish. The first one is model validation. One of the reasons that option-pricing methods work well in the capital markets is because they are thick markets,

and they provide the ability to validate the model. In the insurance liability case, we don't have these thick, efficient markets, so we don't have a way of validating. This applies equally to the option-pricing and appraisal methods.

There are other unresolved issues relate to integrating with current accounting methods. The first one is the incidence of profit. All of the methods discussed would anticipate different patterns of profit. A second issue is integration with *FAS 115*. Both of these issues go well beyond the charge of the task force, but if anyone wanted to move forward with fair valuation of liabilities, certainly that would need to be addressed.

Finally, as I mentioned, these methods are all rather complex and would be difficult, in my mind, to audit. I'm sure that auditors in the audience have experienced some difficulty in auditing *FAS 97* already. As a result, we think there's a number of objectivity and practicality issues that would be involved in applying any of these methods.

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Purchase Accounting Issues

MR. BRADLEY M. SMITH: I will be discussing the actuarial aspects of issues that surrounded accounting for acquisitions of life insurance companies and blocks of business prior to the conclusions adopted by the Emerging Issues Task Force of the FASB in November 1992 (i.e., purchase GAAP). The conclusions of the Emerging Issues Task Force contribute to the definition of GAAP for publicly traded companies in the U.S. I hope by the end of my presentation you will understand the issues that precipitated the need for more uniform accounting for acquired business. Additionally, at the end of my presentation I will review a purchase-GAAP approach to converting a mutual company to GAAP.

Let's review a generic purchase-GAAP balance sheet immediately after the acquisition of a life insurance company and/or a block of business. For purposes of my discussion, there is no need to differentiate between whether a block of business or a company has been purchased:

1. Invested assets equal net statutory liability transferred plus target surplus established (assets held at market value).
2. Value of in-force asset equals discounted present value of pretax profits.
3. Goodwill is a balancing item used when the purchase price paid for the business exceeds the aftertax present value of projected profits on the business. This usually occurs when a premium price is paid to reflect the new business potential of an acquired company.
4. Benefit reserves equal GAAP benefit reserves (i.e., account value for universal life policies as defined by Statement of Financial Accounting Standard or *SFAS No. 97*).
5. Deferred federal income tax is the present value of the federal income tax to be paid on the business. The discount rate used in this calculation typically equals the discount rate used to calculate the value of in-force asset.

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6. Equity equals the purchase price paid plus the target surplus established on the business.

It is important to remember that the balance sheet assets must equal the sum of the balance sheet liabilities plus the equity at all times (i.e., the balance sheet must be balanced).

FASB established Issue No. 92-9 (accounting for the present value of future profits resulting from the acquisition of a life insurance company) to be considered by its Emerging Issues Task Force.

Specifically, the primary issues addressed were:

1. The discount rate used to determine the initial value of in-force asset
2. The methodology used to amortize the value of in-force asset
3. Unlocking mechanisms

The actuary was already given some guidance in determining the methodology to be used in establishing the initial value of in-force asset. Actuarial Standard of Practice Interpretation 1-D having to do with purchase accounting states: "The profit allowance . . . used in determining the reserves should be consistent with those which apply to current new business issued by the company which will be assuming the future risk on the acquired business."

While not explicitly directing the actuary, this has been interpreted by actuaries assigned with determining the value of in-force asset as implying that the discount rate used in the calculation of the value of in-force asset be consistent with the return anticipated by the company in its production of new business. This is consistent with the conclusions adopted by the Emerging Issues Task Force which stated, "In establishing the risk rate of return, key factors which are considered include the yields on self-generated business,

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capital costs of the acquirer, the potential impact of changes in the regulatory environment as well as the discount rate implicit in the seller's offering price."

Let's look at a simplified example which will help us illustrate the issues (Table 1). In this example a block of universal life business (as defined by *SFAS No. 97*) was purchased. To simplify the example, the tax reserve equals the statutory reserve, which equals the account value. Additionally, no target surplus has been imputed to the line of business, and the purchase price was equal to the aftertax present value of profits (gross and statutory).

Assuming an aftertax purchase price return objective (hurdle rate) of 17% and a tax rate of 34% (would be 35% today), the present value of the gross profit stream is \$18,149 (the initial value of in-force asset) and the present value of federal income tax is \$6,171 (set equal to the initial deferred tax liability). Therefore, GAAP equity, which is equal to the purchase price paid for the business, is \$11,978, the difference between these two items. Using the level ROE approach to the amortization of the value of in-force asset, its balance is redetermined each year as the prospective present value of gross profits. The pretax GAAP profit equals the gross profit plus the increase in the value of in-force asset. The aftertax GAAP profit equals the pretax GAAP profit times one minus the tax rate ($1 - .34$). The ROE equals the aftertax GAAP profit divided by the GAAP equity at the beginning of the year. As you can see, if gross profits emerge as anticipated, a level ROE equal to the discount rate used to produce the value of in-force asset is produced.

Table 2 uses the same example but amortizes the value of in-force asset using principles implicit in *SFAS No. 97* methodology. As you can see, the balance sheet immediately after the acquisition is the same. The initial balance of the value of in-force asset and the deferred federal income tax liability were calculated using the purchase price return objective (i.e., 17%). The difference between this example and the previous example

TABLE 1

Purchase GAAP Example
Purchase Price Return Objective: 17% FIT Rate: 34%

Year	Gross Profit	PVP @ 17%	Pretax GAAP Earnings	Deferred FIT	GAAP Equity	After-tax GAAP Earnings	ROE
0		\$18,149		\$6,171	\$11,978		
1	\$3,400	17,835	\$3,085	6,064	11,771	\$2,036	17%
2	3,425	17,441	3,032	5,930	11,511	2,001	17
3	3,450	16,956	2,965	5,765	11,191	1,957	17
29	620	359	142	122	237	94	17
30	420	0	61	0	0	40	17

Present Values @

7% \$34,228

17% \$18,149

TABLE 2.

Purchase GAAP Example
Purchase Price Return Objective: 17% Gross Profit Ratio: 53%
FIT Rate: 34% Credited Rate: 7%

Year	Gross Profit	PVP @ 17%	Pretax GAAP Earnings	Deferred FIT	GAAP Equity	After-tax GAAP Earnings	ROE
0		\$18,149		\$6,171	\$11,978		
1	\$3,400	17,617	\$2,868	5,990	11,627	\$1,893	15.8%
2	3,425	17,034	2,842	5,792	11,242	1,876	16.1
3	3,450	16,397	2,813	5,575	10,822	1,857	16.5
29	620	208	326	71	137	215	65.1
30	420	0	212	0	0	140	102.2

Present Values @
 7% \$34,228
 17% \$18,149

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is the methodology used to amortize these initial balances. In this example a gross profit ratio is determined by dividing the value of in-force asset (i.e., the present value of the gross profit stream using the 17% purchase price objective) by the present value of the gross profit stream using the credited rate.

The retrospective deposit method as defined in *SFAS No. 97* is used to amortize the value of in-force asset, producing a faster amortization than does the level ROE method. Thus, aftertax GAAP profit is deferred into the later years, producing a nonlevel ROE, which is less than the purchase price return objective in the initial years increasing beyond the purchase price return objective in the later years.

This particular example, due to its simplified nature, is not necessarily indicative of the level of difference these two methodologies will produce in the years immediately after the acquisition of a block of business.

Nonetheless, Table 3 illustrates the effect that the difference in methodologies has on our example.

Both of these methodologies were acceptable to the accounting profession. However, this inconsistent accounting treatment of the same block of business based upon whether the business was purchased from another company or was produced directly by the company creates an unlevel playing field between those companies that produce their own business and those companies that grow through acquisition. This inconsistent treatment affected a company's access to additional capital as the equity market's view of a company was driven largely by the level of a company's earnings (i.e., price-earnings ratio) as well as its growth in earnings per share. I do not believe that the difference in accounting treatments acceptable in each circumstance was recognized or appreciated by the capital markets. This generated a need for more consistent treatment (among the treatment of purchased blocks of business as well as between the treatment of produced business and acquired business) that was addressed by the Emerging Issues Task Force of the FASB.

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The unlocking mechanisms used when actual results deviate from expected when accounting for purchased business were not well-defined and the approaches taken by different companies varied widely.

TABLE 3
Purchase GAAP Example

Year	Aftertax GAAP Level ROE	Earnings <i>SFAS 97</i>	Cumulative Additional Earnings	% of Cumulative Earnings
1	\$2,036	\$1,893	\$144	7.6%
2	2,001	1,876	269	7.1
3	1,957	1,857	369	6.6
4	1,903	1,804	468	6.3
5	1,847	1,751	564	6.2
10	1,553	1,479	982	5.7
15	1,223	1,191	1,237	5.2
20	840	887	1,171	4.1
25	402	536	647	2.0
30	40	140	0	0.0

Tables 4 and 5 illustrate the affect on the emergence of GAAP profit due to the unanticipated termination of 10% of the business in year three. In Table 4, the loss of business and the loss of future profit is reflected immediately at the end of year three through a reduction in the level of the value of in-force asset. Pretax GAAP profit falls precipitously in this year, lowering that year's ROE. The ROE in following years returns to its prior level assuming no other unanticipated events. This is analogous to what happens to companies using a GAAP factor approach for their purchased and/or produced business.

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In Table 5, rather than recomputing the value of in-force asset using a discount rate equal to the purchase price objective, the value of in-force asset is held at its anticipated level and the discount rate is recomputed such that the present value of prospective gross profits equals the anticipated value of in-force asset. Thus, the loss is not entirely absorbed in the year of occurrence but is "amortized" in future years through a reduction in prospective ROEs.

The level to which this discount rate can fall before loss recognition must occur was also an issue. I have heard arguments for the minimum acceptable ROE being the net investment rate (which is what I believe), the credited rate and zero.

In conclusion, remember that business acquired prior to the adoption on November 19, 1992 of the conclusions of the Emerging Issues Task Force can continue to use (i.e., no restatement is required or acceptable without impacting the income statement) a level ROE approach to the amortization of the value of in-force asset if it had been using that method. However, for business acquired since November 19, 1992 a level ROE amortization approach is not acceptable. This is another example where the FASB has rewarded or encouraged the use of aggressive methodology where unresolved accounting issues exist.

In the current version of the *Financial Reporter* Ronald Takemoto has authored an excellent article on the conversion of a mutual company to GAAP. The typical process involves creating historical GAAP financial statements through the collection of historical information on capitalizable expenses and the application of the standard of practice methodology on GAAP for mutuals. This represents an incredible amount of what I would view as unnecessary work for most companies. The objective of the work is to create an opening GAAP balance sheet (maybe year-end 1990 through 1993 depending upon how many prior years' results are desired) from which prospective GAAP financial statements can be produced. It is unnecessary because we know within a very limited

TABLE 4

Purchase GAAP Example
10% Reduction in Business In Force in Year 3
Purchase Price Objective: 17% FIT Rate: 34%

Year	Gross Profit	PVP @ 17%	Pretax GAAP Earnings	Deferred FIT	GAAP Equity	After-tax GAAP Earnings	ROE
0		\$18,149		\$6,171	\$11,978		
1	\$3,400	17,835	\$3,085	6,064	11,771	\$2,036	17.0%
2	3,425	17,441	3,032	5,930	11,511	2,001	17.0
3	3,105	15,261	924	5,189	10,072	610	5.3
4	3,038	14,818	2,594	5,038	9,780	1,712	17.0
5	2,970	14,367	2,529	4,885	9,482	1,663	17.0

TABLE 5

Purchase GAAP Example
10% Reduction in Business In Force in Year 3
Purchase Price Objective: 17% FIT Rate: 34%

Year	Gross Profit	PVP	Pretax GAAP Earnings	Deferred FIT	GAAP Equity	After-tax GAAP Earnings	ROE
0		\$18,149		\$6,171	\$11,978		
1	\$3,400	17,835	\$3,085	6,064	11,771	\$2,036	17.0%
2	3,425	17,441	3,032	5,930	11,511	2,001	17.0
3	3,105	16,956	2,620	5,765	11,191	1,729	15.0
4	3,038	16,442	2,523	5,590	10,852	1,665	14.9
5	2,970	15,919	2,447	5,413	10,507	1,615	14.9

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range what the actuarial aspects of the balance sheet must be without producing all of the historical information.

Let's review what we know. We know that the benefit reserve is a formula-driven reserve very similar to a statutory net level reserve. This is very easy to produce. We know that the deferred acquisition cost (DAC) balance must be continuously unlocked to reflect historical as well as prospective anticipated experience (i.e., current assumptions with no margin for adverse deviation are to be used). We know that the DAC balance cannot exceed the present value of future profits using current assumptions without margin for adverse deviation and a discount rate of the net investment earnings rate (i.e., probably somewhere between 7.5% and 8.5% in today's environment). If the DAC balance did exceed this amount, loss recognition would be required. Finally, we can surmise that auditors will not allow the initial DAC balance to fall below the present value of profits using current assumptions without margin for adverse deviation and a discount rate that reflects a reasonable risk rate of return (i.e., probably around 10-12% for permanent participating business). Since the amortization of DAC represents a drain on future earnings, we can feel confident that the auditors will not allow us to significantly understate the initial DAC balance as this would result in overstated future GAAP earnings.

It has been my experience that a change of 2-3% in the discount rate for an existing block of life business produces a change in the present value of profits of approximately 10%. This obviously is a very rough rule of thumb. The question is, why do all of this historical data gathering and emulation of what the historical accounting would have produced when we know within a very limited range what the DAC balance must be?

MR. GAMMILL: I'd like to comment on Brad Smith's remarks. First, I probably don't agree with everything that Brad said on purchase GAAP, but then again, that's no surprise because I don't know any two actuaries who ever agree on everything concerning purchase GAAP. In the shortcut approach to GAAP that Brad suggests for

mutuals, the issue usually comes down to the great principle of materiality. In other words, you can do straight-line deferred acquisition cost amortization if it's not material. You don't need to worry about estimated gross profits, margins, premiums, or anything else. After, however, when you go through the exercise of proving whether it's material or not, you've almost done what you needed to do in the first place.

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MR. STEPHEN L. WHITE: My talk is about GAAP for mutuals. Brad has already told you what the answers are, so I'm going to tell you what the questions were.

If I had been giving this talk three years ago, I could have just called it statutory for mutuals, because at that time, most mutual life companies and their outside auditors agreed that statutory statements were GAAP statements for mutual life insurance companies. Nothing else had been codified as GAAP. We were explicitly exempted from the important FASB pronouncements about how to account for our insurance activities. Finally, and very importantly from our point of view, our only owners were our policyowners. There were no outside investors who needed protection. There seemed to be no demands from these users for anything else. I do acknowledge that some companies -- that many companies, in fact -- were preparing modified GAAP statements for their own internal purposes. In most cases, these modified GAAP statements were not made public.

In 1992, the FASB observed that there were some of its other pronouncements that we were not following, such as those describing investment activities and those describing our pension obligations as employers. In response, FASB issued its Interpretation 40. In Interpretation 40, FASB concluded that statutory accounting was not GAAP accounting and that, if we were going to describe our statements as GAAP, we must comply with all the pronouncements unless we were specifically exempted.

In practice, there are three important exemptions in the existing literature. Those are *Financial Accounting Standard (FAS) 60*, which covers traditional nonparticipating life insurance; *FAS 97*, which covers universal-life-type policies; and *FAS 113*, which covers reinsurance.

While Interpretation 40 told us what wasn't GAAP, it didn't tell us what GAAP was. It gave no guidance on the proper accounting for insurance activities. It did encourage

the AICPA to complete a long-delayed study of the proper accounting for mutual life insurance companies.

In response, the AICPA created a mutual life insurance task force and charged it with coming up with a recommendation. I was the nonvoting liaison from the American Academy of Actuaries to that task force. There was an Academy task force consisting of myself and four other actuaries, to support that effort.

The AICPA gave some explicit instructions to this mutual life task force. One important one was to work very quickly. Another important one was to stay within the framework of the existing literature, specifically *FAS 60* and *FAS 97*, deviating from those two only as required by the nature of the transactions. It did not say that we had to choose either *FAS 60* or *FAS 97*. We considered that we had the opportunity to blend concepts from those two models, but we clearly could not go outside the scope of those models.

For example, a level ROE approach, such as what Brad described for purchase GAAP and what many people think would make sense for a mutual company, was not acceptable as not within that scope. Obviously, even though we referred to it from time to time, statutory was not considered to be within the scope of *FAS 60* and *FAS 97*.

I want to give you an overview of the major issues that were in front of the task force and comment on some of them individually later:

1. An important one was the nature of a policyowner of a mutual life insurance company. Is the policyowner a customer of the company or is he an owner of the company? In fact, he is both, but the accounting model can't necessarily recognize that.
2. What is the pattern of earnings that should emerge from the issue of a life insurance policy by a mutual company?
3. What should be the definition of revenues?

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4. Obviously, if you're going to project earnings and determine a deferred acquisition cost amortization schedule, you have to make some kind of assumptions. What sort of assumptions are you supposed to make at the point in time when you issue the policy? What do you do later on as actual experience emerges and those assumptions turn out to be not exactly what you expected?
5. One important feature of participating life insurance policies that doesn't exist in nonparticipating and is less important in participating policies of stock companies, is that we pay policyowner dividends. Policyowners have a right to choose what's done with the dividends. They can take dividends in cash. They also have the option of using dividends to purchase additional paid-up insurance. We had to decide how the use of those dividends should affect the reported net income stream.
6. Finally, an issue that surfaced rather late in the deliberations is whether any kind of special treatment was required for limited payment policies. When the original *FAS 60* was developed, there were no special rules for limited paid policies, and there was some early reporting of income that was later corrected in *FAS 97*.

Earnings emergence is what most people consider the most important issue. The conflict was whether earnings should be proportional to premiums, which is what the existing *FAS 60* model would say, or whether earnings should be proportional to margins as in *FAS 97*. Unfortunately, this wasn't just strictly a two-sided question. Because if you decide that profits will emerge based on margins, you have to measure those margins. You need an account value. The account value has two purposes. First, the account value is the liability on the balance sheet in a margin-based model. Second, it's the basis of measuring the margins.

To calculate margins, you measure how much of an interest spread you earned, the difference between the interest you earned and the interest you credited. You need to know the balance you're earning interest on and crediting interest on in order to determine that interest margin. We needed to come up with an account value to use as that balance.

With *FAS 97*, it wasn't too hard. Universal-life-type policies normally had an explicit account value that was identified to the policyowners. That was deemed to be appropriate as a measure of the liability. A traditional participating policy does not normally have such an explicit account value. In fact, I've never seen one that does. We had to consider what alternatives for a mutual participating policy could be used as a proxy for an account value.

These four proxies were seriously considered: dividend fund, cash surrender value, statutory reserve, and net level premium reserve. By dividend fund, I'm referring to the traditional three-factor dividend calculation. In a three-factor formula, the company calculates excess interest on some fund, and it calculates a mortality element using a net amount at risk. The fund that it uses in those calculations is what we meant by the dividend fund.

The cash surrender value had some appeal from the existing literature *FAS 97*, which says if you can't figure out what the account value is for a universal-life-type policy, use the cash surrender value. While that provided some theoretical justification, on the other hand, every universal life policy has a cash surrender value, and in extremely few cases, is that cash surrender value deemed to be the proper liability? We did not believe that we were constrained by *FAS 97* to choose cash surrender value.

Statutory reserve was a possibility since every policy had one, and it was auditable. In many cases, it would be the same as the dividend fund. A net level premium reserve was another possibility we considered. We had the opportunity to consider other proxies, though I don't believe we gave serious consideration to any others.

An issue that seemed very important to the companies and yet at the same time was described as "just presentation" was the definition of revenues in the financial statement. Should we report premiums as revenues (which is what is done in statutory accounting and in *FAS 60*), or are the premiums just deposits with margins as revenues, which is the

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typical treatment in *FAS 97*? It makes a big difference in the total revenues and total expenses for a company.

On a universal-life-type policy, if a policyowner pays \$1,000, the revenues are typically about 5% of whatever the level load is. On the other hand, if that payment is *FAS 60* premium, there is \$1,000 of revenue. In terms of bottom-line impact, it makes no difference: if the entire premium is reported as revenues, the corresponding establishment of the reserve is an expense item.

Some people considered that this issue was independent of the issue of how earnings should emerge. Other people thought it was very important that the two should be linked, that if we were going to choose margins as the basis of earnings emergence, we should be choosing margins as revenues and therefore premiums as deposits.

Now I'm going to talk about what decisions were reached on these issues. The first important decision is just what model will be followed. The task force concluded that the existing exemptions from *FAS 60*, *FAS 97*, and *FAS 113* should be removed. Many products issued by mutual life companies should follow those models. For example, term insurance and health insurance should normally follow *FAS 60*. Annuities or universal life issued by mutual life companies should normally follow *FAS 97*.

However, most of our traditional, permanent participating insurance will follow a new AICPA statement of position (SOP). In order to qualify, it has to meet two different criteria. They have to be long-duration, participating contracts that pay dividends based on our actual experience; and the company must be distributing surplus in accordance with the contribution principle.

Various groups observed that some stock companies might be issuing policies that meet those two criterion. The conclusion about those was that this SOP would be optional for stock life insurance company policies meeting those definitions. What happens for a

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mutual company whose participating business doesn't meet the criteria? Probably *FAS 60* would apply. From a public relations point of view, I don't think mutual companies would want to be in the position that they said they weren't paying dividends based on actual experience.

Here are some specific decisions that are a part of the exposure draft SOP:

1. The customer role of policyowners is their predominant role, and it is not feasible to split their role between customers and owners of the company. One consequence of that is that all dividends are charged as an expense in the statement of earnings. No dividends are to be charged directly to surplus.
2. The task force concluded that earnings should emerge based on margins. They reached that conclusion because they considered these policies economically similar to universal life and recognized the company flexibility in dividend determination. Having chosen margin-based emergence, they needed a proxy for the account value. On the basis of some modeling work and some general reasoning, they chose that the net level premium reserve based on the guaranteed mortality, but on the dividend fund interest rate, as the account value. By the dividend fund interest rate, I mean something that's frequently like the statutory reserve interest rate. It's the "guaranteed" rate in a dividend calculation. It's not the total interest rate. Therefore, it does not include the excess interest piece. The net level premium reserve is the reserve just for the guaranteed benefits, not for future dividends. The conservatism inherent in discounting at the dividend fund interest rate and at guaranteed mortality provides a reserve for the future dividends.
3. The draft SOP also reached the conclusion that premiums should be described as revenues. The major reason for that is that these policies are bundled. There is no explicit account value mechanism. Policyowners frequently do not have any flexibility in whether they pay premiums or not. Therefore, the task force concluded that the premiums were very similar to *FAS 60* products' premiums and should be reported as revenues.

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4. Consistent with premiums as revenues, the task force decided that dividends were a single expense, that they were also bundled and should not be reported as a dividend component, a mortality component, an expense component, and any other components a company might have in its individual dividend scale.
5. With respect to assumptions, the task force concluded we should use no provision for adverse deviation. The conclusion was that the dividend mechanism provided the ability to adjust for adverse deviation. An important decision was that, as actual experience deviates from original assumptions, deferred acquisition cost (DAC) should be adjusted retrospectively, exactly as in *FAS 97*. This was controversial and opposed by most companies. Companies would have preferred to adjust DAC prospectively, which most thought was more consistent with the nature of the mutual life dividend distribution policies. Higher bodies within the AICPA decided if profits are to be based on a margin-based model, there is no substantial reason to deviate from *FAS 97*'s rules for handling deviations from original assumptions.
6. In the original exposure draft of the SOP, the recommendation was to generally assume dividends are paid in cash. Therefore, while there will be profits from dividend additions that emerge in the financial statement, those profits from dividend use would not affect DAC amortization.
7. The initial exposure draft of the SOP recommended that, on limited pay policies, loadings, defined as the difference between the gross premium and the net level premium, should be deferred and recognized over the lifetime of the policies. At the time, the AICPA and FASB staff believed this sounded like exactly what is done with limited-pay *FAS 60* policies. In fact, it was very different, as I told them at the time. Under *FAS 60*, the net premium would include a provision for dividends and for expenses. The net level premium in the context of this participating model does not include any explicit provision for dividends or any explicit provision for expenses. So if there are higher dividends or higher expenses during the premium paying period on a limited-pay policy, the company would expense those two elements during the premium period and recognize the loadings only over the life of the policy.

In response to exposure draft of the SOP, the AICPA received about 35 comment letters. Considering that there are only about 125 mutual companies in the U.S., I don't know whether that's a good response or a bad response. Here is a summary of what those comment letters said and a few comments from me on what's likely to happen:

1. There's still a split of opinion. Many companies still think that *FAS 60* would have been the better model. In somewhat of a dichotomy, I personally was representing the Academy on this activity. My company submitted a letter saying we would prefer *FAS 60*.
2. Many writers suggested that there should be no special treatment of limited pay. Indeed, based on some modeling I've done for them since the exposure draft and since these comment letters, the FASB staff agrees that the proposed adjustment for limited pay is inappropriate. On the other hand, the FASB staff still has some concern about the possibility of front-ending of income on limited-pay policies. Therefore, it's hard to predict what the eventual outcome will be.
3. Many writers suggested the use of dividends should be reflected in the DAC amortization patterns. They observed that the majority of dividends are not paid in cash. Many companies see as much as 75% of their dividends regularly going to paid-up additions. They felt this was an important part of the profits and shouldn't be ignored in matching expenses with the profits. This was theoretically a sound argument. It's consistent with *FAS 97*, and the AICPA and FASB have bought it. I will observe that, from my perspective, recognizing dividend use is much more difficult to implement than assuming dividends are paid in cash. You must deal with multiple dividend scales that have existed over a varying of periods of time. The final version will say dividend use should be reflected.
4. Many writers said that DAC should be adjusted prospectively. That won't change now. The AICPA felt that it had considered the issues and that there were no new arguments in the comment letters.
5. Finally, everyone who commented on timing believed that the effective date should be delayed at least one year. The SOP was originally to have been effective with

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1995 statements. Both the AICPA and more recently FASB have bought into that; so that it will be delayed until 1996 statements.

I'm not going to discuss the implementation of this. At my company we're working extremely hard on it, but we can't see the light at the end of the tunnel yet. In fact, we're working so hard at it that we can't even stop to figure out what we're doing.

