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### **Session 22 PD**

### **GAAP for Mutuals—Current Status**

**Track:** Product Development  
**Key Words:** GAAP, Mutual Companies

**Moderator:** CHARLES D. FRIEDSTAT

**Panelists:** JOHN R. APRILL  
MARK M. HOPFINGER  
EDWARD L. ROBBINS

**Recorder:** CHARLES D. FRIEDSTAT

*Summary: Panelists will share experiences and discuss alternative approaches to various implementation issues related to mutual company GAAP conversions. Items discussed will include general implementation issues (length of amortization period, classification of contracts, “back casting” and gathering of historical data, selection of assumptions, and so forth), FAS 115 approaches, issues that specifically relate to mutual companies (deferral of policyholder dividends to later policy years, reflection of extraordinary policyholder dividends related to investments in subsidiaries, and so on) and uses of GAAP financials and information learned from the conversion process.*

**Mr. Charles D. Friedstat:** I’m a senior manager with KPMG Peat Marwick in Chicago. During the session, there will be three presentations, and then I will ask some questions of the panel. There will also be an opportunity for questions from the audience. The whole focus of the session is to share some experiences that companies have had and talk about certain issues that companies may or may not have faced.

Ed Robbins is a principal with KPMG Peat Marwick in Chicago. Ed will be the first speaker, and he will be talking about some of the history leading up to the development of GAAP for mutuals and the related issues and how they got into the current *Standard of Practice (SOP) 95-1*. The second speaker will be John Aprill.

John is a vice president and assistant actuary in the individual lines area for Prudential. He'll be sharing with you some of the experiences that he has had during his company's GAAP conversion that has been ongoing and is nearing completion. The final speaker will be Mark Hopfinger, who is second vice president of financial management, for General American Life Insurance Company in St. Louis. Mark will also be sharing some of his experiences. Since each speaker could probably talk for hours on the subject, they will concentrate on a few things that were particularly important to them in the process, some of which may be unique to their company. With that, I'll turn the session over to Ed.

**Mr. Edward L. Robbins:** I'm here to give the historical perspective. They always select the oldest person on the panel to do that. The original stock life company audit guide came out in 1972. Some of the older audit partners that I used to know in the firm said the term, GAAP for mutuals, was a bit of an oxymoron. There were several reasons that it was so difficult to fit mutuals into GAAP, and the final rules that came out in the last few years on *Financial Accounting Standard (FAS) 120* and *SOP 95-1* addressed some of these anomalies and not others.

First anomaly: for a mutual participating life company to choose premiums as the revenue stream, (the revenue base line) the amortization of acquisition expenses was really even more arbitrary for participating policies than for nonparticipating policies. There was enough of an argument in the creation of the original audit guide on nonparticipating policies, and the complications were compounded for participating policies. When you price a participating policy, you're dealing with premiums, cash values, annual dividends, termination dividends, and so on. You have all those knobs to turn and to use premium as the revenue base line was considered extremely simplistic. That was one of the main reasons that mutual companies were exempted from GAAPing back in 1972.

Jumping ahead to the present, *FAS 97* became required in the first quarter of 1989. It deals with universal life under the so-called retrospective deposit approach for universal life model. It pointed the way for *FAS 120* and the SOP on participating policies. What *FAS 120* attempted to do was to borrow a little bit from *FAS 60* and from *FAS 97*. What it borrowed from *FAS 97* was the concept of gross profits or gross margins constituting the revenue baseline over which to amortize revenue. That was a great step forward. It was a cure for the premiums-as-revenue problem

perceived by the people who originally put together the stock life company audit guide back in 1972. That's how we've recently gotten over that hurdle.

While we're talking about it, *FAS 97* had two particular problems in life insurance professionals' eyes that were later cured by *FAS 120*. One was that there was an income statement presentation problem with *FAS 97*. For those of you who have both universal life contracts under *FAS 97* and traditional nonparticipating contracts under *FAS 60*, you know that the income statement presentation under *FAS 97* eliminates premium income, surrenders, and reserve increases, and it uses a deposit liability approach to the income statement presentation. On the other hand, the income statement for *FAS 60* products retains all those features. When you add up all the premiums you received on a total company basis, you get a number that makes no sense. *FAS 120* and the SOP bring you back to your traditional income statement presentation that senior management of life insurance companies have been accustomed to seeing. That is, one sees premiums, investment income, reserve increases, and so forth.

The other problem with *FAS 97* that *FAS 120* cured was the concept of using the credited interest rate to discount gross profits and amortize your deferred acquisition cost (DAC). The proper mathematical answer is the earned interest rate, and the new FASB statement for participating business spoke to that issue and decided on the earned interest rate. If your experience emerges as you had hoped, your net book profits will emerge as a level percentage of your gross margins. *FAS 97* calls it gross profits; *FAS 120* calls it gross margins, but it's effectively the same thing.

In short, the choice of revenue baseline was the first anomaly. The second anomaly was that GAAP and participating lines don't appear to fit together very well because the mutual company concept traditionally deals with a snapshot of accumulated divisible surplus and accumulated asset shares relative to some base line like your reserve, cash value or dividend fund. The excess of the divisible surplus accumulated over that theoretical base line fund becomes your dividend, possibly factored down to some extent. You're always measuring a kind of inventory of accumulated surplus versus what you actually want to distribute. GAAP is completely different from that.

The formulas that were put together for GAAP basically establish a corporate account as a virtual holding company within your actual company. Each separate line of business is like a small subsidiary company, and each January 1, the GAAP equity that the line develops is swept into the corporate account. That's really the definition of a GAAP book profit in somewhat simplistic terms. So GAAP, as opposed to an accumulated asset share type of approach, is a what-have-you-done-

for-me-lately approach, emphasizing current income. That dichotomy was troublesome to many people.

The next item I want to discuss is something that really hit me with one particular client company. This is a mutual life company that has many nonparticipating lines and makes a great deal of money. The group pension area, the group life and health area, certain types of administrative only health plans, and similar lines of business (including investments in subsidiaries) are involved. It's a mutual company with many nonparticipating lines that are considered by the company to be investments: an investment of the mutual policyholders as owners. If you have a huge amount of money being generated from nonparticipating lines that have to be divested to the owners at some point, GAAP doesn't work very well unless you contrive something else other than the classic GAAPing model. In other words, you may have a product where all your costs are not unrecoverable. This company pays large annual dividends, and eventually, generous termination dividends. According to the normal GAAP formulas, it's an unrecoverable product under the GAAP concept that says the mutual company dividend is really only a customer dividend.

In this case, the dividend is a combination of a customer dividend and owner dividend, and the GAAP model doesn't fit well. The owner portion of the dividend arguably does not belong in the GAAPing process. You have a stock company where dividends to shareholders are not part of the GAAPing process, but the dividend-to-owner part of the policyholder dividend is considered part of the GAAPing process. This is a major anomaly with respect to participating policies under FAS 120 and the SOP which really has not been addressed. It was not addressed in the original 1972 audit guide, and it really hasn't been addressed at all as of the current date.

You could always simplistically bifurcate your dividends into customer and owner dividends by yourselves if you wanted to. That bifurcation is somewhat technically problematic. They've been trying to do it for years in the Internal Revenue Code. It's akin to King Solomon's suggestion that the mothers cut the baby in half. In fact, we don't run into those problems very much these days. Part of the reason was given in a *Transactions* paper that came out in 1987. It was "The Report of the Task Force on Mutual Life Insurance Company Conversion," Volume 39, page 295. It talked about two types of mutual company models: the revolving fund model and the entity capital model. Under the revolving fund organization, every dividend class, leaves with the surplus that they've accumulated. Under the entity capital organization, what you're really doing is contributing to permanent surplus that you leave with your company. When the dividend class leaves, they leave some permanent surplus with the company. Most of the companies that participated in

that 1987 paper, considered themselves to be more entity capital than revolving fund.

There's much more commonality now than there used to be between mutual companies and stocks. We're all scrambling for capital by various sources, hence, the demutualization movement on the part of many companies, and hence the other schemes to generate capital. I mentioned universal life. Back in 1972, you had participating policies and nonparticipating policies. You didn't have gray area policies like universal life and indeterminant premium policies. The advent of FAS 97 started drawing things closer together as well.

That's where we are today in terms of the lessening or ebbing of the theoretical road blocks.

I just want to mention the nature of the benefit reserve. Another major theoretical question was, what should the benefit reserve be? The benefit reserve is probably the weakest link in the retrospect of deposit theory. For universal life, it was simple; use the account value. You had no account value for participating business so there were a whole bunch of alternatives suggested. You'll find these suggestions and the basis for conclusions as part of the SOP. They finally settled on a net level reserve with mortality assumptions equal to the guarantees in the policy, the cash value guarantees, and an interest assumption equal to what they called the dividend fund rate. If you don't have a dividend fund in your company, you use the cash value interest rate or the guaranteed cash value interest rate.

What is a dividend fund? A great deal of the large mutuals had what they would call kind of a pegged asset that they could calculate at issue. Any accumulation of surplus over that pegged asset share, the dividend fund, if you will, became the dividend under the dividend assumptions under what they wanted to release. There was at least one company that argued vehemently to use the dividend fund as the benefit reserve under this new FAS because they felt, and rightly so, that the dividend fund is the thing that really operates most like an account value. If you look back at the basis for the conclusions of the SOP, you will find that is written. The dividend fund really is the thing that most resembles an account value for mutual life companies. The dividend fund did not win out though. The final reserve was the net level premium using the mortality guarantees, the guaranteed interest rate, no lapse assumptions, and no expense assumptions.

Moving from the theoretical issues of trying to shoehorn GAAP accounting into the mutual environment, I want to shift to a few war stories that I've commonly seen in mutual company GAAP conversions. I'm going to go through this fairly quickly. First, converting universal life under FAS 97 was, in a way, a piece of cake

compared to the mutual participating business problem. Universal life began to be issued around 1980 in most companies. Participating business goes back 50, 60, or 70 years, although many of you out there probably chose to use GAAP back in 1967 or 1970 or something like that. Theoretically, you have to do an archeological dig to get historical expenses, historical investment income, capital gains and losses, and all the historical insurance transactions and premiums to get historical deferrable acquisition expenses. If you weren't accumulating data that way to begin with, it is quite a job.

These things have been addressed, and there are solutions. Let me talk about the noninsurance type transactions first, such as expenses, investment income, and capital gains and losses. Virtually all companies have all their old annual statutory statements, but there is suddenly another use for them. At least if your expenses and your investment income agree in total to total company expenses and investment income, and then get allocated consistently over the years, you have some sort of a starting point.

You can go from a recent year back to some target years knowing that you should square to total Exhibit 5 and Exhibit 6 expenses, knowing you should square to Exhibits 2 and 3, if you will, or Exhibit 3 for investment income in some manner, and Exhibit 4 for your gains and losses. As far as historical premium claims, or insurance type transactions, let me say that it's probably fairly easy, in most cases, to go back and get inventory items like insurance amounts, reserves, policy counts, and that kind of thing.

The second major issue that I want to just briefly touch on is the dynamic of locking prospectively. How do you get prospective assumptions? Many people feel you really ought to keep them more or less equivalent with your dividend assumptions so that you don't have major disconnects in there. If you simply keep it in line with your dividend assumptions, that's probably not too bad. What auditors frown on is taking a policy that has been issued for two years, when it's in the second policy year, and changing the prospective assumptions. You have two years of history and 28 years of prospective experience. A change to your prospective assumptions can make a huge difference in your deferred acquisition cost and your asset. As an aside, *FAS 120* and the SOP is optional for stock companies. One of my stock company clients said, "I think we may want to look at *FAS 120* because it's optional for us." I said, do you want to do that for better management information or better control of where you're making your money. He said, "No, we want to manage earnings." It's possible but it should be avoided. You should have a discipline with respect to your prospective assumptions. We found that many companies have difficulty modeling their dividend options into their expected gross margins. The typical traditional pricing actuary assumed dividends were paid in cash, and that

was kind of the path of least resistance. Now you're supposed to put your mix of dividend options and the margins emerging from there into your expected gross margins, and that has led to a bunch of tough administrative issues on the part of some companies.

I've noticed that a couple of companies, believe it or not, are going back to a factor approach, kind of a seriatim factor approach for *FAS 120*, and that's really interesting. I've seen people going back to a worksheet approach under *FAS 60*, it's a crossing. The advent of technology is lending itself to a crossing and a mixture of methodology.

Concentrating solely on the participating business, there are advantages and disadvantages of a so-called factor method versus a modeling method. I don't necessarily mean factor files when I refer to a factor method. The normal approach these days is to create your factors on the fly and apply them to your units in force.

One of the advantages of modeling is that you can compare model aggregate prospective results with company history and avoid disconnects. In other words, if for a particular block of business you have \$2 million of cash surrenders in your last year of history and \$5 million in your first year of prospective, you know something's wrong. You know that your lapse rates are not smooth between history and prospective, and this applies to death claims and so forth. There's a great deal of internal control between prospective and historical that modeling can lend that you really lose when you do a factor approach. It also gives you an automatic experience study. If your prospective mortality is according to a certain table and your historical aggregate claims are about what your prospective claims are, there's some sense of comfort you can gain from knowing that your prospective assumptions might be reasonable. The last item is typically in the conversions that I've seen. Modeling lets you put in your aggregate deferrable acquisition cost at the top of your worksheet in dollars. If you go to a factor approach, you have to unitize it, and you might carry that unitization for a few years. You always have to validate back from your unit factors to the aggregate expenses you actually incurred in the Annual Statement Exhibits 5 and 6.

A disadvantage is that the model must be continually validated. It has to be continually checked to be representative of your in-force business. You should check that your model is consistent with modeling for other purposes. For example, you want to be using the same model between GAAPing, cash-flow testing, and forecasting, otherwise you may end up with some strange explanations to senior management.

File management issues on modeling can be fairly complicated. This involves actually trying to fit the dynamic validation into your model; in other words, you're trying to actually get your history to come out to fit your cell points, or your history of cash flows into your cell points. Under a seriatim method, it's no big deal. The main problem with factor approaches is that you don't have an automatic reality check of how good your factors are. In other words, when you replace your 12-31-94 prospective, you project the 1995 experience, and if you happen to be one of the companies that's actually trying your 1995 experience in February of 1996, you can compare what actually happened with what you thought would happen. You don't have that kind of animal with factor approaches, so you lose that control.

The last point I want to make is be careful with vendor systems. There are some vendor systems out there on the cutting edge. I think I really ought to call it the bleeding edge. I'm not being critical of any particular software system, but software is a very capital-intensive business. They must get this stuff out on the street before it's perfect and start generating revenue; therefore, many companies have inadvertently become beta test sites when they've been the first to buy a piece of equipment or a piece of software.

**Mr. John R. Aprill:** This will be a slightly lower tech presentation. About a year ago, I was asked to join a financial reporting unit that had been formed at Prudential to provide actuarial support for the conversion of individual life insurance business to a GAAP basis. At that time, it sounded like a really good idea, something on the cutting edge, something that sounded like a really big career improvement methodology. Unfortunately, I did not know how much work this was going to involve or the enormity of the undertaking. It turns out there was little in-house expertise in GAAP. Essential information was not readily available, especially on our older policies. Our financial systems did not calculate or amortize a DAC asset. In addition, our financial reporting systems were not geared up to actually report anything on a GAAP basis or in a GAAP format. After overcoming those obstacles you finally get to the point where you're getting true GAAP results, and you're never entirely sure that what you get is a correctly stated GAAP result or whether you may have somehow misapplied GAAP principles in some way, shape, or form to your business. Consultants, software vendors, and your external auditors are excellent sources of feedback on the quality of the work that you're doing, and we've used them extensively.

The real challenge that we had in our GAAP conversion were the problems we faced after we understood the GAAP issues and then tried to apply them and work through them. Because GAAP is not as inflexible as statutory counting, there are usually several possible correct methods that can be used to solve any one problem that you come across. The challenge is to pick the correct method that's best for



both your company and your business. In this presentation, I'll take you through some of the major issues that we faced at Prudential, the options that we considered, and how we resolved some of them. We'll start with product classification.

Current classification or correct classification of your products is an essential first step in the GAAP conversion process. This is needed in order to apply the correct FASB pronouncement to the particular line of business. For life insurance, participating term and permanent life insurance would fall under *FAS 120* or the SOP. Variable life insurance policies will be treated under *FAS 97*, and nonparticipating term and permanent life insurance will be classified as *FAS 60*. While this classification system seems fairly straightforward, it can be difficult to apply to what I would call hybrid-type products, (those products that do not fall nicely into one of these categories because they have characteristics of several categories.) Some of these products were developed at a time when the universal life concept was still in its infancy and, in fact, that provides a good example of the nature of the problem.

One of the products that Prudential sold at that time was a fixed-premium plan, but it had the slight modification of fund value. The fund value also earned interest income but it also paid dividends which generally came from the expense and mortality gains. The question becomes, What is the correct standard to apply to this piece of business? We took a very careful and close look at *FAS 97* and the SOP, and concluded that the predominant features of the policy suggested that *FAS 97* was the correct way to go and that would be the standard that really should govern this particular contract. This was not a preferred result for us, and the primary reason for this is that even though it did have a fund value and even though it did have characteristics of *FAS 97* products, it had much more in common with traditional fixed-premium type products and would have been easier to model as an SOP-type contract.

One of the other reasons we were concerned is that this particular product would have been more complex to build a special model for as a *FAS 97* piece rather than an SOP piece. In addition, it would require some fairly expensive system changes to make it work. Fortunately for us, this particular product was a very small piece of our total block of business, and it was really deemed to be immaterial to the entire block which gave us the ability and a great deal of flexibility to be able to treat it as an SOP even though it otherwise would qualify as a *FAS 97*-type product.

Similar classification problems will also come up with term riders. For example, if you have a nonparticipating term rider, and you put that on a participating policy, what standard should apply? Similarly, if you have a variable product and you apply a participating term rider to it, what standard should apply to that? There are really two basic choices. One is you just let the base policy govern the

classification overall, and the second thought is to treat the term riders completely separate from the base policies; this way you have the appropriate standard applied to each piece. Product classification may become a bigger problem in the future because it's quite possible that the product development efforts that we're all undergoing right now, or will undergo some time in the future, may get well ahead of the FASB classification systems and create more problems like this for us all.

With products correctly classified, there are two main actuarial issues that need to be addressed. One, take a look at your GAAP reserves. Second, take a look at how you would calculate and amortize your DAC asset. As far as GAAP reserves go, this is fairly straightforward. The SOP requires net premium reserves, and *FAS 97* uses the fund value. The tougher question deals with other statutory reserves, such as extra mortality reserves, term conversion reserves and specialty reserves, like the minimum death benefit guaranteed reserve. Because each of these is defined conservatively on the statutory basis, a new decision is required for each item on a GAAP basis.

There are actually a number of choices that can be considered for each reserve. The first one is the statutory reserve is inappropriate to be held on a GAAP basis at all, and so the GAAP reserve equals a zero. Certain kinds of substandard mortality reserves could fall in that category.

The second possibility is to set the GAAP reserve equal to the statutory reserve because the statutory reserve might be your best guess for that particular reserve. If that option is chosen, the GAAP reserve will change whenever the statutory reserve changes. Reserves for items such as accidental death might fall in that category as well.

A third option is to set the GAAP reserve equal to the statutory reserve where the statutory reserve is not your best guess, but it is not unduly conservative at the same time. For these, you would also have to show or be prepared to demonstrate that the actual GAAP reserve and the statutory reserve that you might be holding for it have a difference that is not material to your overall financial books. Disabled life reserves on a waiver premium is something that might fall in this category. If you use an option such as that though, the GAAP reserve does not necessarily change when the statutory reserve changes, however, each year you must evaluate the issue of materiality of the difference between the two, and that would determine whether or not the GAAP reserve would need to change.

The fourth option is to set your GAAP reserve equal to some kind of a formula that could have a value of zero or some other positive value. The minimum death benefit guarantee reserve is something that might fall in this category. This is

something that is only paid out in the event that your fund value falls below a certain trigger point. When it reaches that trigger point, the fund value is no longer sufficient to support your minimum death benefit. In general, as long as all your contract fund values are above the trigger point, no reserve is paid. On the GAAP basis, you only want to set up a reserve when something falls below the trigger point.

We've run into one issue that you may or may not come across on your own. On certain things, we've actually had agreement in principle that a particular reserve could be set to zero on a GAAP basis. You don't need to hold it; it's only a statutory reserve. One of the auditors asked, "By the way, how much money are we talking about anyway?" And we said, "Last year it was about \$600 million." Suddenly it acquired a whole new meaning. So sometime between now and when we finally put all of our financial statements to bed on this basis, we will have all those decisions. At the present time, we're having many discussions about them.

Another intriguing question arises as to whether it is acceptable, on a GAAP basis, to hold additional voluntary reserves. If you were your company's valuation actuary, would you feel it would be appropriate? There's no explicit provision for this in the SOP. In *FAS 97*, there's some generic language that suggests that you might be able to hold some additional reserves, and for *FAS 60*, it's not really a problem because you can just tweak your provision for adverse deviation. What makes this a really big issue is that GAAP does not permit you to hold reserves if the purpose of holding the reserve is merely to defer income from today and move it to some future time. So if you're thinking about holding additional reserves because you feel that little premium reserve on the SOP is inadequate, for whatever reason, you need to show that the reserve that you're currently holding on a GAAP basis is inadequate and that would be a very difficult task. Care should also be taken finding an additional GAAP reserve because once it's created, it will be very difficult to convince people, particularly external auditors, that it's a good idea to take them down or eliminate them.

The second major actuarial concern for GAAP is modeling deferred acquisition costs and accumulating the unearned revenue reserve or terminal dividend liability. What we'll do is explore a number of techniques for DAC modeling, but as we do this, it is important to bear in mind the following goal. What we're trying to do on a DAC basis is come up with a model that will generate gross profits or gross margins. That is a materially correct model, not a perfect model. Remember that the items that we're dealing with from this point forward are really estimates. As we go through various methodologies and apply them, we may or may not improve the overall estimate. The bottom line is, you are still dealing with an estimate. Creating models for currently issued products is not a difficult task. We have the benefit of

models that have already been created for pricing or cash-flow testing, and that provides us with a really good jump start on the modeling process. Pricing memos and methodologies on these recent products are fairly easy to retrieve, and much data, especially for universal life and variable products, should already exist. If it doesn't, conversion to GAAP accounting is not your biggest problem.

But what about the older products? You might have read in the Jordan book, *Life Contingencies* about things like the retirement income endowment, the parent-child policy, the husband-wife policy, and other types of family policies. Policies such as these fall in the category of pre-1984 contracts in which you had much more flexibility in terms of having life insurance products with different maturity dates. There are a number of interesting product features that you can play with, but they're really not used in current pricing today. Documentation can tend to be sketchy at best in these old products, and actually may be nothing more than the absolute minimum required for statutory accounting purposes. This may consist only of information to calculate reserves and cash values. It may be a dividend scale history and a copy of the original policy, and this information is only available if a financial system is in place at the time the policy was issued, and if that information was collected and retained.

Additional information required for GAAP is not likely to have been created or retained for two reasons. The first is that information needs have been increasing over time, so the older the policy is, the less likely it is you were to have collected information that you might need today. Second, much of the information that you need for GAAP was not known at the time these policies were originally created so that's another good reason why it probably doesn't exist.

There are several techniques for modeling older blocks of business. One of them is to try to eliminate as much of the old blocks of business as you possibly can by working through the amortization periods and schedules. Grouping of policies to simplify the number of cells you're going to model is a second technique. Using approximations and trying to put in missing or incomplete information or hard-to-get information is a third technique. Backcasting is a fourth.

The DAC amortization period will have a sizable impact on how much historical information is needed. This is significant because the longer the amortization period, the further back your modeling needs to begin. If you're amortizing over the lifetime of a policy, it will be necessary to go back to the beginning of time for your company for any policy that is currently in force. If, however, the amortization period is 30 years, then you only need to go back 30 years to gather historical information because the DAC after the 30 years would have fully amortized and been zero. I think Charlie's companies are already using a 30-year period or a

lifetime period as their amortization period. It may also be possible to use different amortization periods for different blocks of historical business.

Shortening the DAC amortization period is not without its problems. The most major one is that it runs counter to the FASB requirement for a DAC amortization period equal to the expected future lifetime of the life insurance business. In order to use a shorter amortization period, it's necessary to demonstrate to the satisfaction of your external auditors that the shorter time period has no material impact on your GAAP income statement. This demonstration may be required in future years as well. Business might also be taken in a group by essentially trying to take a group of similar policies and put them together and model them as a single cell. We discovered that doing this is really just as accurate (as long as you have carefully selected groups) as if you were to go ahead and do a full seriatim estimate of each of the pieces.

Grouping policies into different cells has a number of advantages. It definitely reduces the number of cells that need to be modeled today and maintained in the future. It can eliminate modeling of old, complex contracts, and it also attempts to solve the problem of having to come up with missing or incomplete data on some of those older contracts. It eliminates the need to fund and read old, musty, dirty records from a damp subbasement in some off-site facility.

While grouping can be a powerful tool, you need to ensure that the group plans are comparable and do not cause unanticipated results. For example, grouping limited pay contracts or endowment contracts by their maturity periods sounds like a good idea, but if you choose, for example, the shorter maturity period, then you'll have premiums that will go to that period of time and stop. If you choose the longer period, the opposite effect will take place. By trying to deal with that, you can basically take the premiums and weight them by their reserves and weight them by the distribution of policies you currently have issued. That's not always the most effective thing to do.

At Prudential, we try to come up with centrally located cells so one cell would represent the majority of the reserves. Then we try limited pay periods around that so that you'd have higher and lower periods offsetting each other. We also made extensive use of approximations in the modeling process in order to help populate ourselves, primarily because the data are not always easy to obtain. For example, GAAP expenses need to be separated in type of position expense, maintenance expense and overhead, and the only historical expense information may be commissions and other expenses. Each expense item can be approximated by using the unit costs in your pricing model. Rates can then be developed to separate this

historical experience and appropriate amounts are put into each of the three expense components.

Another technique is to relate each of the expense items to a variable that you can actually keep track of. For example, you can relate commissions to premiums or relate maintenance expenses to some in-force amounts of just renewable premiums. With those three models, your overhead will just fall out as a balancing item. A very powerful technique to use to work through this is graphing because it will tend to show you where you have an anomaly and where you don't.

The final technique for dealing with old business is backcasting. Backcasting is a technique where you take the business that you currently have in force today and apply your lapse rates and mortality rates in reverse to develop what the in-force business must have been to get you to the point of determining what you have left today. You have to do this on an issue-year basis. Backcasting is an excellent tool to apply to pause accounts and face amounts. Once these amounts are determined, then it's fairly easy to apply premium assumptions, expense assumptions and dividend assumptions to recreate what must have happened historically.

Backcasting, unfortunately, does have a few limitations. It assumes that the business in place today is the same business that is in place in old historical periods of time. That may not be the case because the oldest block of business that exists today is essentially the policies that were issued to the younger people originally. The older people have since died, so they're no longer included in your model as of today. Backcasting also does not capture information in policies that have matured or term policies that have since expired because they're not currently in your in-force block. Backcasting also makes a key assumption that your mortality and lapse rates apply uniformly across all policy groups. In the aggregate, that's true, but it's not necessarily true for any one individual policy form.

Prudential has also made extensive use of backcasting for similar lines of business. Once a DAC model is created, the final step is to go through a process that was described earlier by Ed. You take the information that's being produced in the model and compare it to your statutory statement numbers to try to get the two in sync. If one is not in sync, tweak your model appropriately to bring it to something appropriate for the past. There are a number of things you will have to take a look at in the future. One of the key items is making sure that your assumptions historically and going forward are somewhat in sync or have something to do with each other, or you'll get questions from your auditors.

Some of the kinds of things I'll mention briefly which are issues that have arisen in our company are things such as expense reductions. How do you treat them

prospectively from a GAAP basis? We concluded that we would treat them prospectively on a GAAP basis only if you have a plan in place and you start taking steps to engage in that plan. The second thing is dividend scales. Your current dividend scale can be used to model your business prospectively, but you have to make sure that your assumptions along the dividend scale are remaining the same so that your expense assumption, mortality assumption and investment income assumptions all tie back to what your dividend scale is also assuming.

Finally, one of the things that is an area that you really ought to take care of and look at going forward is abbreviated payment plans. How might they change premium payment patterns going forward. It may have an impact on your investment income as well and your future margins. As you can see, converting to GAAP accounting for a mutual company is a real challenge. It's long, it's tedious, and it's difficult work but, if I can paraphrase the introduction to the *Star Trek* episode, it gives you one small satisfaction—you've gone where no mutual company actuary has gone before.

**Mr. Mark M. Hopfinger:** What I'd like to address in the last part are three topics primarily related to how you communicate GAAP for mutuals to your upper management. Remember that the senior management of your organizations like to spend their time on strategic and tactical problems and do not become involved with understanding trivialized accounting issues. They will never become GAAP experts.

One area I want to address here concerns the current management reporting practice in place, and GAAP for mutuals may replace that. How do you compare what GAAP for mutuals will give them to what they had before? I also want to expand a little further on John's comments about consistency of assumptions in your dividend scale going forward and the importance of capturing your dividend practice. Third, I want to discuss dividends from the surplus account. I'll describe that a little bit more as the corporate dividend, and the owner dividend, as compared to the experience dividend.

Going back to current management reporting, I'll assume that GAAP will become your current management financials, and that you will wish to publish these GAAP statements. If you're a New York domiciled company you may want use these in your discussions with the various rating agencies. Given these uses, these statements become very important. Your chairperson and your executive officers are very important players when they're trying to either affirm or upgrade their ratings.

At General American, we've prepared management GAAP financial statements, income statements and balance sheets since 1985. In 1985, we did not have the

SOP or *FAS 120*, and the FASB pronouncements excluded participating policies for the reasons that Ed alluded to. General American selected the source of earnings method for its management financials from the list of potential alternatives suggested by the 1985 Society of Actuaries Mutual Life Task Force. So we have that in there. This is obviously less than the amount of work you have to go through to get here. With the source of earnings method, the expected profit pattern of participating business is in proportion to margins before deferral expenses but after dividends. To date, General American's internal management GAAP financials have consistently applied the source of earnings methodology.

In addition to applying the source of earnings methodology to the traditional participating whole life business, General American also elected to use this approach for the term business rather than applying *FAS 60* concepts. The source of earnings methodology is different from *FAS 60* which assumes profit is expected to emerge in proportion to anticipated premium receipts based upon assumptions applicable when the contracts were issued. Original assumptions continue to be used in subsequent accounting periods to determine changes in the DAC asset for future policy periods. This is referred to as lock-in. The concept of lock-in is applicable to both the source of earnings method and *FAS 60*; however, it is not appropriate under *FAS 97* or SOP which apply the concept of estimated gross margins similar to source of earnings. The estimated gross margin (EGM) concept is not significantly different from our source of earnings method; however under the SOP, we will be doing dynamic unlocking. Then we go through and ask, what is the effect of unlocking? The effect of unlocking represents one of the major differences between the application of the source of earnings method for our internal management GAAP versus this new GAAP. Additional significant differences have been referred to before and are included in the estimated gross earnings stream of profits from coverages purchased with dividend options (either paid up additions or term options) and the inclusion of capital gains and losses.

Basically, we tried to set forth to our management what we think the drivers will be in explaining variances from our plans. That is always the question we get. Why was your forecast wrong? It has never been right is one of the reasons we offer, but that doesn't get us too far. We did adopt *FAS 97* for our universal life lines when it came out so our management is already comfortable and has already heard our stories about dynamic unlocking. In the process of explaining this to senior management we've told them, here's what we think is going to happen. Here are the things that are going to drive the variances. Here are the things that fell through to the bottom line under source of earnings methodology, like favorable mortality or favorable investment results, that will no longer fall through.



Back when we were using the source of earnings method, we had an ideal explanation that we might have given once. It said, our statutory results were ahead of the plan by \$4 million. We had \$3 million in favorable mortality, \$2 million in favorable interest, and \$1 million more in expenses due to higher sales. For GAAP, the favorable mortality and investment expenses passed straight through. Via the wonder of GAAP, we capitalized those greater expenses so that million dollar excess expense was hidden so we were \$5 million ahead of our plan on GAAP. With dynamic unlocking, what does that do? That extra \$5 million, that previously fell to the bottom line, will now be part of your dynamic unlocking process and will be dampened. It will shrink. I made \$5 million more, but my GAAP earnings were only \$2 million more because I wrote off more DAC.

Some kind of explanation is required to senior management to give them an idea of what's going on. How do we explain the variances? I think now we have to go through and allocate the variances amongst our various amortizations cells and FASB standards. For blocks that have lock in; *FAS 60*, the variances will fall to the bottom line. Your DAC schedule doesn't get changed because you get good results. For blocks that are past the end of the amortization period (if you choose the 30 years John mentioned; we chose that for simplicity also), it doesn't matter because your DAC balance is zero. However, for blocks where you have dynamic unlocking, you should expect some level of dampening, and I think the level of dampening will depend upon where you are in the amortization schedule. If you're in the latter years, you're still in the amortization schedule. But that's almost the same as being out of it. It's going to be zero at the end. It also depends upon how you allocate your variances going forward and how you reflect that. I'll discuss that later on.

There's also a new item on the balance sheet. We have our shadow DAC. The shadow DAC is a balance sheet-only adjustment. It relates to marking your asset values to market. What's supposed to happen is some kind of dampening on your liability side to reflect the fact that you've either written up your assets or written down your assets and you get a balance sheet adjustment. It's basically absorbed in the same way as your realized capital gains and losses and your estimated gross margins. If you're managing your GAAP surplus, which you probably are doing if you're reporting that to rating agencies, you want to make sure that you make this adjustment. Our first report to upper management conspicuously omitted any adjustment due to increasing the market value of assets. It didn't write down the DAC asset at all so the next presentation required more explanation to senior management.

I'd like to move on now to discuss the dividend assumption. I think this is one of the key assumptions that falls through in mutual companies. From my perspective, I

think there are two key areas that need to be addressed. First, as John alluded to before, you have to make sure projected dividend scales are consistent with the assumptions that you're using to project your experience.

Second, if you have a current experience deviation, what is your company's practice with respect to those? If you have a mortality gain of \$3 million this year, is your practice to allocate that out in the future over the next three, four, or five years to that class of policyholders? If you have a capital gain coming through, do you amortize capital gains in your interest crediting rate over a period of time? You want to make sure that you put those through, and you want to make sure you put them through in the same accounting period because it will give some different results if you're going through and causing a whipsaw. Table 1 shows a simple example.

TABLE 1  
DIVIDEND ASSUMPTION—EXAMPLE 1\*

Year	EGM	DAC	Change in DAC	Contribution Margin
0		\$1,200		
1	\$1,000	600	\$600	\$400
2	1,000	0	600	400

\*Note: Acquisition Costs: \$1,200; EGM/Year: 1,000; Amortization Period: 2 years; Interest Rate: 0%

Suppose you have \$1,200 of acquisition cost, and you have a two-year amortization period. You have 1,000 of gross margins for each year with a 0% interest rate. While you expect to have \$1,000 of EGM for a total of \$2,000 and \$1,200 of acquisition cost amortized, your amortization ratio is 60%. So your DAC schedule ideally will look like \$1,200 at time zero, \$600 at the end of the first year, and zero at the end of the second year.

Let's suppose in the first year you only make \$200, an \$800 variance (Table 2). If you replace expected with actual, and if you don't change future projections, your EGMs are now \$1,200; the amortization ratio has changed from 60% to 100%, resulting in a DAC balance of \$1,000 or a DAC charge of \$200 the first year and \$1,000 the second year.

In both years, the contribution margin will be zero. Notice the amortization ratio. I guess one thing is you're absorbing your negative deviation via the DAC balance sheet. Instead of a fixed DAC schedule, bringing up \$600 and \$800 would have been screaming through at the bottom line. The \$800 variance was absorbed, and you experienced only a \$400 variance from your expected contribution margin.

TABLE 2  
DIVIDEND ASSUMPTION—EXAMPLE 2

Year	EGM	DAC	Change in DAC	Contribution Margin
0		\$1,200		
1	\$ 200	1,000	\$ 200	\$ 0
2	1,000	0	1,000	400

Another option would be that you can pass through the experience and hope to make \$1,800 next year. Your DAC schedule looks like this, Table 3 with the original 60% amortization ratio.

TABLE 3  
DIVIDEND ASSUMPTION—EXAMPLE 3

Year	EGM	DAC	Change in DAC	Contribution Margin
0		\$1,200		
1	\$ 200	1,080	\$ 120	\$ 80
2	1,800	0	1,080	720

Instead of writing off \$200, you write off \$120. Your balance will be \$1,080 and then zero at the end of year two with an amortization ratio of 60%. You have a margin in the first year of \$80, and in the second year a margin of \$720. In both cases, that's 40% of the expected gross margin. I think you want to be careful when you're doing this.

If, at the end of the first year, you decided that your experience would not change, you would show zero profit. If you decided it was recoverable in the future year, you're going to show at least a small profit. The variance from your expected income is exactly your amortization ratio times whatever your variances are. I think it is important to decide how to manage this. How you set this up could probably simplify your explanation to top management. If you tell them your amortization ratio is 60%, and you had an \$800 variance, they would expect your earnings to be \$320 less.

In the second example, we have a profit that's \$400 less, so you have two pieces running through there. Rather than make life complicated, you probably should try to match those up, especially if you have a practice of amortizing your actual gains and losses into the dividend scale as well as how you reflect them in the future.

One other point in this example is that eventually you're going to replace all your projected numbers with actual numbers so you better be careful about what expectations you set because you may still be around at the end of that period. I recommend a 30-year amortization period.

I'd like to get to my last point, and this is a point we're still struggling with. As a mutual, we feel it's our responsibility to maximize the value of our policies to our owners, the participating policyholders. We have also engaged and invested in a number of nonparticipating businesses, either through subsidiaries or lines of business in the company, and we've recently adopted an asset segmentation policy where the excess surplus gets transferred to a corporate account, and the corporate account is responsible for investing that money in new businesses. However, we do expect that a portion of those earnings that are necessary to maintain the vitality surplus of the corporation will be distributed to our policyholders in the form of enhanced dividends. This gives us a little problem because the revenue stream, this extra corporate support, is not part of our current estimated gross margins.

We're still having discussions with Bud Friedstat on this, to see if we can include or exclude the ownership dividend somehow. But just to give you an example, we went through and assumed our dividend was enhanced about ten basis points. We put that in as an expense in our estimated gross margins but we ignored the funding. The DAC balance for various cells varies by issue year, but the DAC balance could have dropped by as much as 5% for different issue year cells.

The DAC balance times 5% is probably a large number in terms of income. I believe this is a problem because if your subsidiary or other investments are doing very well and you're not including that as part of your estimated gross margins, you have the possibility for a good news story for your policyholders. You can tell them, "The company's business units are all performing better than expected. Due to this action, we're now reporting a GAAP loss. Do not be alarmed, things could not be better." Of course, there's also a flip side. The several business units may have performed poorly, and future prospects are reduced so you might have to cut your dividend.

Our GAAP earnings are now the highest they've been in five years. I think when you're looking at these numbers and sending them out there, you really are setting expectations not only for your policyholders but for your distribution system and the rating agencies. You probably want to run through a few extra scenarios to decide which methods, or which assumptions you want to apply. I guess John has gone through quite a bit of that already. We've identified some of these stumbling blocks and are working with our external auditors to try to resolve these problems going forward.

**Mr. Friedstat:** One of the things that was only briefly touched on was management's use of some of these results. Maybe the panelists can talk about some of their experiences. Mark alluded to some possible experiences, but could you talk about what you expect GAAP to be internally? What internal uses and what

external uses will these GAAP financials have in your companies? Ed, base it on your experience with other insurers.

**Mr. Aprill:** Right now, we're having some discussions in terms of exactly how GAAP accounting ought to be used at Prudential. We have a new chairman who comes from Chase which used GAAP accounting results and did many things with them including managing the entire company. We're going through an educational process. We'll surely move up the management ranks to explain to them what it is we've done, what the assumptions are, and what things might go awry. We will be using it trying to develop financial plans both on a statutory basis and on a GAAP basis. Sometime over the next year or two we will find out for sure what's going to happen with it. We do know that we used to have an old management accounting system that we've now replaced with GAAP, so that's here to stay.

**Mr. Friedstat:** Will GAAP be the basis of at least a part of your incentive compensation or is that still in the discussion stage?

**Mr. Aprill:** We've had no discussions on whether it would or wouldn't be.

**Mr. Friedstat:** To what extent do you expect to use the GAAP financials for presentations to Best or other external rating agencies?

**Mr. Aprill:** I'm assuming that they're going to want to see them. We haven't really taken it that far to know exactly how we're going to present it to them or whether they're just going to ask us for the results.

**Mr. Hopfinger:** I guess I could comment more on that. We, in fact, have been presenting our management GAAP results to the rating agencies and will continue to do so. Our chairman is interested in GAAP and that is now the basis of all the incentive compensation that is profit related.

**Mr. Robbins:** Just a couple of things that some of my clients are either doing or thinking about. You have a beautiful expected gross margin stream that emanates from each GAAP valuation run, and you have a very nice surrogate for value added. With a little tweaking, can get you a present value of net book GAAP profits; that's one thing that you can get from it. Also, if you substitute your beginning and endpoints, and throw in required statutory assets instead of your GAAP reserves, then you can get real value added. That's quite removed from that but, in other words, the GAAP model is giving you fairly good expected future cash flows that are summarized so you're not dealing with a 5,000-point model. It might be a good way to get a handle on some preliminary value-added numbers. The other thing that it does is cause you to think in terms of the ability of your GAAP software as a

forecasting tool. It's great to forecast your future cash flows for the next year and then the following year. You have your emerging experience against that. You have some very nice forecasting tools as a result of the GAAP model.

**Mr. Friedstat:** Ed, that's an excellent point, and although it may sound easier than it appears, I think a goal of many companies that I work with is to try to use these systems that they've developed for multiple purposes. They can use it for forecasting. With some adaptations, they could also use it for cash-flow testing. That would be terrific, and again that would get around the problem of consistency of results that you're reporting for one purpose, which would have maybe reporting for another purpose. So many of these things also have some benefits. I'd like to think that after a GAAP conversion there is a benefit. The company does understand their business a little bit better than they did before, and there is some value over and above just complying with a compliance requirement. One of the other things that I'm hearing is that some companies are going to be reporting these GAAP results rather than statutory results to shareholders. Is that something that has been discussed at your two companies?

**Mr. Robbins:** In our company, the anticipated result is that as of this year-end, we will have audited financial results on a GAAP basis, and they will be the basis for presentations to our policyholders in the annual report that goes out. So we'll be eliminating the statutory discussion and focus on GAAP.

**Mr. Hopfinger:** We don't have shareholders, policyholders, or stakeholders.

**Mr. Aprill:** I'm not aware of any information that we'd be publishing to any policyholders even as the role in capacity as stakeholders.

**Mr. Friedstat:** Let me bring up a completely different issue that wasn't discussed. In mutual company GAAP conversions, where you may have had to take losses, you had some poor experience on a line of business, and it would have happened in the past. How did you handle these sort of issues? I've worked with a number of clients on either whole lines of business or on certain rate books for say disability income. It may have happened. There are certain specific products that formed the definition of a line of businesses for which companies have taken write-downs. This raises a number of questions.

To what extent did you use subsequent experience after the date of loss recognition to help choose your gross premium valuation assumptions? In other words, what should have happened is at the time that the losses were probable and estimable, you would say, "We'll have to write off DAC or a portion of DAC and/or set up additional reserves." The one thing that you generally want to try to avoid is once

you do take a write-down, I think one of the concerns of management when we deal with them is they want to make sure that they don't have to take a write down again in the future.

The other thing that I'm concerned about when I'm looking at it is that you want to have a reasonable pattern of earnings. Theoretically, if you had perfect hindsight and a crystal ball, this write-down would produce a result in which all your assumptions are realized in the future. You put those assumptions into your GAAP model. You'd have zero earnings going forward, and you certainly don't want to be too conservative and have material earnings. You also want to be concerned about possibly having unusual patterns of earnings. Sometimes what you may do in the gross premium valuation is use a very conservative assumption. In the early years, that actually may wind up producing gains and maybe lesser margins as you go further out resulting in a declining pattern of earnings or even gains followed by losses. I'd like to ask the panel, based on some of their experiences, how they dealt with some of these issues. Did they allow for future experience or deterioration? How conservative were they?

**Mr. Hopfinger:** We had the fortunate experience of having a disability income line that went from having a DAC asset to not having a DAC asset. We took some loss recognition in 1994 on our old management GAAP, after we came over and took a new look at the numbers. After looking at it though, we found out that the experience, and the information was determinable as of year-end 1993 so it was part of our GAAP for mutuals effort. One of the things we're doing is shifting the timing of the loss recognition to year-end 1993, when all the events that should have led us to write it off occurred. That's a full loss recognition case. We also have a universal life product that I find similar to John's. We pay dividends on our universal life products in addition to having current mortality and interest rates, which makes it a rather interesting product. In distributing surplus, we have some cells that give rise to negative estimated gross margins. We're refunding built up surplus. The current period earnings aren't sufficient and we established an extra liability so that at the end of the period, if there are persistent negative earnings, it will basically give rise to zero earnings during the last portion of the amortization period.

**Mr. Robbins:** I would just add a couple of things to what Mark said based on my experience. You ought to really be careful and look at the pattern of estimated gross profits (EGPs) and EGMs. It is not uncommon. It may actually force you to take a harder look at your dividend scale. I wouldn't be surprised if almost every company had some cells that had positive EGMs followed by negative EGMs if you continued the same assumptions. Those are things to be watched out for. GAAP would force you to basically take some of those positive EGMs and set up additional reserves to levelize out those profits over the years.

There's another example I can give you. I dealt with one company that had some problems with a line of disability income business. What was interesting was that the focus of this mutual company was on the level of the reserve. It wanted to ensure that its reserve was adequate. It did set up an adequate reserve. There may have been some conservatism in there, but if everything emerged as they expected, they would have an unusual pattern of earnings because of the limitations within their system. They were not able to build in deterioration by duration, and they had to put in deterioration assuming some level at all durations. What happened was that deterioration would in actual practice be expected to gradually build up. You had very positive margins coming through if you were to continue this model in the early years which would decline and actually may have negative margins in later years. The solution is either to develop a system or use a system that is more flexible. What was interesting about this was the level of the reserve at year-end 1994. You could have used various combinations of assumptions that would come up with that same reserve level. So the reserve would still have the same level of adequacy. It's important, especially in loss recognition, to be concerned about what assumptions are used to build up that reserve and the pattern of earnings.

One of the points I'm trying to make is that mutual company management is focused on reserve adequacy, and that's all they've been doing. There's a different focus. There's more of a necessity to focus on earnings. I don't think you would want to set up a GAAP accounting system where you have some gains now in the early years and in the next few years, have that declining pattern of earnings which might even possibly lead to losses.

**Mr. Aprill:** We've seen several instances of companies setting up initial liabilities, funding it over the otherwise gross profits, and then eventually, when gross profits become negative, filling in the holes with the release of that liability. A nastier problem occurs in flexible premium annuities, where you could have initial negative gross profits because the interest spreads in the initial durations of a flexible annuity, are not large enough to offset the maintenance expenses. That's a major issue if the numbers are large, and I have not yet seen a really satisfactory solution to that. That's a tough one.

**Mr. Friedstat:** Let me offer one last question. Ed sort of alluded to it. It's inevitable that, to some extent, in your GAAP modeling, whether it's a FAS 97 product or an SOP product, that you're going to be having negative EGPs or EGMs. If they're not material, you might have some flexibility. How did you deal with these problems when you faced them in actual practice?

**Mr. Aprill:** The path of least resistance is to zero them out. If the product is otherwise recoverable and the issue is not material, you zero them out. The nice



thing about *FAS 60*, *FAS 97*, and *FAS 120* is they all define recoverability and loss recognition on the line-of-business basis, not on a cell-by-cell basis. I rarely have ever seen an entire line with some major recoverability problems. I have seen it, but it doesn't happen that often.

**Mr. Friedstat:** That's another issue. I think you're discussing a degree of aggregation.

**Mr. Aprill:** Yes. *FAS 60* has a definition of line of business. It's a method of acquisition, a method of servicing and a measurement of profit. If a block is homogeneous with respect to those three items, then it's a line of business and can be aggregated. Many companies will aggregate the load-out level.

**Mr. Friedstat:** Has anybody on the panel seen a situation where the decision was made to adopt an alternative amortization stream because of negative gross profits? I've seen it once, and it had to do with a very unusual product that isn't written here. It had to do with a U.S. company that has a U.K. subsidiary that had a unit-linked product. The unit-linked product would be synonymous with a separate account product but, unlike the products here, the account value does not build up very quickly. The initial "profits or margins," in the early years, almost exclusively recover the acquisition cost, and it isn't uncommon to have no real account balance in the first couple of years. There was some discussion about how this doesn't show the economics of the product. This accounting model *FAS 97* really doesn't represent it very well. In that situation, they did propose an alternative benefit stream that more realistically reflected the economy and how the product was doing compared to its assumptions.