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## **Session 90PD**

### **General Accepted Accounting Principles (GAAP) Implementation Issues**

**Track:** Financial Reporting  
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*Summary: Financial Accounting Standard Board (FASB) Interpretation No. 40, "Application of GAAP to Mutual Life Insurance and Other Enterprises," was effective for financial statements issued for fiscal years beginning after December 15, 1995. Accordingly, mutual life insurance enterprises that wish to prepare GAAP financial statements in 1996 and beyond will have to apply pertinent authoritative accounting pronouncements, such as FASB statements and Interpretations, Accounting Principles Board Opinions, and American Institute of Certified Public Accountants (AICPA) Statements of Position (SOPs), that do not explicitly exempt mutual life insurance companies.*

**Mr. Robert M. Beuerlein:** Leading off we're going to have Mary Ann Peltier from Shenandoah Life, which is just getting started with its GAAP implementation. She can give us an insight from that perspective.

Ron Takemoto is now with PolySystems, but at one time he was with Penn Mutual. He'll share some ideas with regard to the practical issues with regard to GAAP implementation.

Rounding out our cast will be Jim Milholland from Ernst & Young in Atlanta. He'll be talking about GAAP management information systems. Maybe he'll even talk about some international and general types of topics.

**Ms. Mary Ann H. Peltier:** I'm with Shenandoah Life. I've been with Shenandoah Life for only nine months. I was with Chubb Life Insurance in Concord, New Hampshire, prior to that.

The mutual company environment is new to me, and I'm going through some learning as far as that's concerned. But GAAP isn't new. I've dealt with GAAP for a number of years. In fact, I was very heavily involved in the Financial Accounting Standard (FAS) 97 implementation at Chubb. So I have an interesting perspective because I need to learn some new things about the mutual approach, but I have gone through GAAP and understand some of the major issues.

As Bob said, Shenandoah is very recently entering into the process. And as a result you may find that I raise more questions than I give you answers. I'm hoping that Ron and Jim answer some of my questions as well as yours.

I think it's important to get an understanding about why Shenandoah Life has decided to go to GAAP. I think that the purpose does affect how you might decide to do your implementation.

I'm going to talk about some of the immediate hurdles that Shenandoah has run into. And I'm going to talk about some of the longer-term issues that we're putting on the list that we're going to have to handle as we go through the process.

Why is Shenandoah going to GAAP? The first and foremost reason is to comply with FAS Interpretation No. 40. To explain and qualify the opinion to your board of directors, to your senior management, or to your policyholders would be extremely difficult. So we need to go to GAAP in order to get a clean audit opinion.

Second, we need to be able to respond to the rating agency. I don't know how many of you have been asked by the rating agencies whether you're doing any internal GAAP financial, but Shenandoah has been asked for several years now. At this point we haven't. Shenandoah's been purely a statutory company doing only statutory reporting and not looking at anything, whether it be true GAAP or our own divided internal GAAP.

So we haven't been able to respond to the rating agencies with that concern, and we're looking to do that.

Third, we want to be able to benchmark against our competitors in a better fashion. We can certainly benchmark against our competitors on statutory results. But many of our competitors are doing GAAP, and we want to also be able to benchmark ourselves against them from a GAAP standpoint.

I think the most important reason, however, is to improve our financial management information. We have been managing ourselves using statutory results and using traditional mortality and persistency studies. Coming from a stock company, I look at the existing reports, and I have no idea which products are making money, and which products aren't. We need some additional management tools.

GAAP doesn't get you there completely, but you can leverage off of GAAP to get to management information. You need to know that's one of the goals of your GAAP implementation when you start so that you plan for it as you progress.

The immediate hurdles that I'm going to address are twofold, although I've broken them out into three categories. One is your knowledge base or your education that's required to get yourself going. And the other is the resource issue. I've broken the knowledge base into two levels. One is at the implementation level and one at the senior management level. I'm going to explain each of those as we go through.

Let's discuss the knowledge base at the implementation level. What do I mean by the implementation level? The implementation level is the people who are actually going to be doing the work: the actuaries and the accountants, and even some of the information service (IS) people or your operations people who are going to be involved in accessing data and providing you with recorded information as you progress in the financial review process.

These people need to understand what all of their approximations are, and how they impact our particular lines of business. At Shenandoah, we may be small, but we have a little bit of everything, so we're affected by all of the different proclamations.

These people need to be able to understand the new process well enough that they cannot only redo the process of putting the system together, but also, after we're up and running and GAAP financial reporting becomes our regular monthly reporting mode, they can be knowledgeable enough to be able to understand what's going on in the lines of business, and explain it to the senior management levels.

For Shenandoah, the current knowledge at that level is minimal. When the company hired me in February, it hired its one and only GAAP person. I'm the only one who knew anything about GAAP at all. So we had a long row to hoe to get people even to the level that they needed to start doing some of the work.

My perspective, having gone through some prior implementations, particularly with FAS 97, was that we not only needed to increase the knowledge level within the

organization, but also we needed to access outside resources because we wanted to be able to look at different options—not just review the proclamations and come up with our own interpretation. We wanted to be able to access knowledge about what other companies did—what worked, what didn't work.

Shenandoah is too small for us to have to redo GAAP implementation. I know when *FAS 97* came out, one of our experiences was that everybody started in one implementation direction, and two or three years down the road had to go back and redo how they approached *FAS 97* in order to make it more user friendly.

So one of Shenandoah's goals in establishing this knowledge base is to establish one that enables us to avoid making some of those mistakes. As such, we decided to find some consultants who had a great deal of experience, not just with GAAP implementation but with mutual GAAP implementation. We interviewed four different firms and settled on one. We have been using that firm to come in on several different occasions to actually hold training sessions for our people. We have used the firm to educate the accountants and to educate the actuaries on the issues that they need to know before we can move further into the project.

The other level of the knowledge base from my perspective is the senior management level. This includes your chief financial officer (CFO), chief executive officer (CEO), and your board. These people are going to need to understand GAAP enough to recognize the implications of some of the decisions that are going to get made as you're going through the process. Their expectations need to be in line with what the outcomes are going to be. And in order to get to that level, they need to know what the issues are.

Also senior management is going to be asked to be making some decisions as the company goes through the implementation process. Those decisions are going to affect current GAAP equity. They're going to affect future GAAP earnings. Senior management needs to understand what that impact would be.

Many people tend to think of GAAP effects as an increase to your GAAP equity. In fact when I first got to Shenandoah, the CFO started asking me what is GAAP going to do to Shenandoah? His impressions were that GAAP was going to increase the equity and increase earnings. Shenandoah's a unique company that has a declining block of new business. So it is very likely, although we're not at that point right now, that I can tell you that it's 100% GAAP. It's very likely that GAAP earnings could potentially be less than statutory earnings because we're going to be setting up a deferred acquisition cost (DAC) and we're not going to have a great deal of new DAC to set up each year. The writing off of the DAC is going to reduce the GAAP earnings.

Senior management needs to understand issues like that. We're using our outside consultants as we're going through this early educational process, to bring up issues like that and to talk about how other companies are doing. What other companies have found out and how their situation and Shenandoah's situation matches up other companies' can be used to limit our exposure. Our goal is that senior management does not get any surprises when we go to GAAP.

As a result, you have to start early. You can't wait until you have your final income statement to sit down with senior management and start educating them about the process. It has to be started early, and it has to be ongoing throughout the whole procedure.

The other big issue and immediate hurdle for Shenandoah is resources. This is probably an issue for everybody. I categorize these resources in three areas: people, systems, and time. They probably all interrelate quite a bit. Shenandoah has two financial actuaries. It has basically two accountants. These people are not only dedicated to getting the GAAP project up and running, but also the accountants have to continue to do the monthly reporting and the other business planning, to do the cash-flow testing, and to tend to all of the other financial issues that are coming up.

If there's one thing from my short six months of experience in this GAAP implementation process that I would highly recommend, it would be that you dedicate a resource. Having resources who are trying to do other projects at the same time is making it very difficult for us to stay on schedule and for us to get the project done.

We had originally intended to have a significant amount of our data gathering done by this time of the year. We're still very much in the early stages, because we've had to pull people off for our other projects.

The company needs to recognize that the GAAP implementation project has to be a high priority, and you have to assign those resources. For Shenandoah we have two or three other high priorities going on at the same time. Probably the major one is a new administrative system for both our group and our individual lines of business.

This moves us into the next category of resources: What are your resources there? We have all the data we could possibly want, particularly with respect to universal life. But we can't access that data. We can't access it for two reasons. One is our systems people are tied up on systems implementation and resources are scarce.

The second and probably bigger issue, is that data have been gathered over the years. New versions of administrative systems have gone in. Data files have

changed format. We don't have the history, and we don't have anyone on our IS staff who remembers what those various file formats were.

So we're wrestling right now with how best to get at that. Are we going to be able to free up some of our internal resources and get to the data? Or are we going to find an outside consultant who has familiarity with that particular system, and may be able to help us get into those data files.

That's just one of the big issues. Of course, time is another issue. If we want a clean opinion, we need to have this all done by December 31, 1996. Shenandoah has opted to not do that. We've explained to our board that we're going to get a qualified opinion this year. And our goal is to be finished as of December 31, 1997. But even that is going to present a very tight schedule for us.

Throughout this educational phase that we've been in, in the early parts of the data gathering, we've identified some longer-term issues. Some of these are going to be issues that we're going to face during the implementation process. Some of them are issues that we just want to keep in mind for when we are actually up and running on GAAP.

The first one is modeling techniques. I think probably everyone of you has several models in your organization. We currently have our cash-flow testing model, and we have our business plan model. Both of those are statutorily based. Neither one of those are currently tied to each other. Now with the implementation of GAAP, we're going to have the DAC model. We're ultimately going to need a GAAP business plan model.

So we've already started to think about how we can tie those models together to maintain consistency. We recognize that they are going to have some differences, because of their different purpose.

But we need to plan for that; particularly as we're building the DAC model. We don't want to build that in isolation. We want to build that in anticipation of tying all these models together.

Approximations is another longer-term issue. We know right now that we don't have the data we need to do certain product lines. We are going to have to do some approximations. Again here's where I'm hoping that Ron and Jim may be able to shed some light, because we haven't begun to address how we're going to do those at this point.

Interpretation of results goes along with my earlier comments on the education. We're going to have to be in a position to not only produce the financials but also to be able to have enough of a knowledge of what's going on to be able to interpret the monthly results to our management. We want to help them understand what's going on in the line of business and why the GAAP results have come out this way when they might not have expected it to come out this way.

Finally, we need to worry about how we're going to measure ourselves. Part of that is just building in a GAAP business plan. If we're going to be producing GAAP financials, we need to have a GAAP business plan to know what to expect in the future.

We also are going to need to address the issue of our pricing models, which right now are purely on a statutory basis. How do we bring those over to a GAAP pricing methodology? How do we incorporate that into our whole product development cycle?

And then finally, let's look at incentive plans. There is something dear to some of our hearts. Incentive plans right now for Shenandoah are based on statutory results. And we've already started discussions with our consultants about how do you move over from statutory to GAAP because that's where we ultimately want to be measured.

So to summarize, I'd say there are two critical paths for the stage that Shenandoah is. We need dedicated resources. I'm going to have to find a way of getting more dedicated resources onto the project. And then the education is critical. Both of those are extremely critical, and if you don't have those at the early stages, it's going to make the later stages much more difficult.

**Mr. Ronald T. Takemoto:** I'm currently working at PolySystems. I previously worked for Penn Mutual involved in their GAAP implementation project. So most of my comments are going to be drawn from that experience. I'd like to start by giving you a brief overview of the process that we went through.

The first thing done was to appoint a project team for the entire GAAP implementation project. This team had representatives from the financial reporting and accounting area, the actuarial area, the systems area, the information systems area, and the product area.

The company had in place a management financial statement process, so we had some basis to start from. This group then created subprojects relating to accounting

issues, expense analysis, investment income allocation, and finally, the generation of DAC and benefit reserves.

The next step was the review of accounting pronouncements. Even though we had a system in place and many of these pronouncements had been implemented, it was still very beneficial. We had decided to bring in outside consultants to give us more expert opinions on what was being done as common company practice.

What we found was that much of what we had done was based on our interpretations, which may have been a little more theoretical than common practice had actually been. This ended up saving us quite a bit of work effort.

During this process is where many of our theoretical and practical issues were raised, and also where we classified each product as to which FAS would guide the DAC amortization.

The next phase, and again many of these occurred concurrently, was data gathering and the modeling process. Here the data gathering was performed from both a historical and an ongoing point of view. We interfaced with all our major administrative systems, but not all data were available. Modeling had to be performed, especially for our traditional block.

Validating data is the step where most of any unanticipated issues came up. As we were validating our data, we found things that we had missed in our first pass through. This step, combined with the data gathering process, probably took up the majority of the time on the project.

The next thing we did was establish our GAAP assumptions. Here we spent time coordinating the assumptions that we were using with other projection sections that were used within the company: corporate modeling assumptions, pricing assumptions, cash-flow testing and asset/liability model (ALM) assumptions. They obviously all wouldn't be the same, but they should be similar. And the final step was to actually project estimated gross margins and estimated gross profits and then calculate our DAC.

We came across some initial issues. The first one was how to produce DAC, (in other words, the logistical problems that would be involved). I think the answer here can range from a fairly manual process to an automated process. All companies, when they review this issue, won't come to the same conclusion. In our particular case, we decided to go with an automated system. I want to just basically go through my thought process there.

As I mentioned we had a management financial system in place. We were generating DAC through a combination of corporate modeling software and spreadsheets. It was fairly manual and labor intensive.

One major issue was the turnaround time that this process took was not acceptable to senior management. The second issue was the high cost in terms of the staff involved. We needed one person per major product line. Another issue that was equally weighing in there was the fact that the GAAP statements would be used to manage the company. Therefore we needed to have the flexibility in order to change assumptions and to see what the impacts would be based on different management decisions that might have been made. This was just not doable with the process we had in place.

Another issue that we dealt with was the frequency of unlocking. This is both in terms of retrospective and prospective. In terms of the retrospective unlocking, it was very desirable, since we were using the statements to manage the company, that the impact of experience be reflected in DAC at the same time that DAC was being booked to the ledger. Therefore, we decided to go with monthly retrospective unlocking.

There was also a desire, from management's point of view not to have any major surprises after the third quarter. So it was not very desirable to decide to do the unlocking after that time.

From a prospective point of view, we planned on reviewing our assumptions on an annual basis. It wasn't anticipated that any deviation experience would necessarily change the assumptions. It was hoped that we would have seen several year's trends in order to justify it, unless we could come up with a specific reason to cause that change; for example, a change in underwriting practices that might impact experience on mortality on new business. Another example would be management decisions that may have impacted the field that would have distorted our lapse rates.

In terms of prospective assumptions we also wanted to plan on looking at this for traditional products. Whenever we changed our dividend scale, our feeling was that change was essentially repricing a product, and that assumption should be tied with the ones that were used to generate this scale. Our expense factors were reviewed on a monthly basis, and the review was tied in with our budget process.

The next issue that we went over was in terms of our amortization period. Here the goal was to minimize the data gathering and modeling efforts that were required, yet have minimal impact on the amortization of DAC. Different ways that you

could try to look at this would be to look at the present value accumulated book profits from your pricing runs. The point in time that these no longer changed materially would be one period that you could use. Another possibility is to modify your pricing runs to amortize on a GAAP basis and test different amortization periods to see what the impact is on the amortization ratio. Regardless of how you come up with this in the end, you need to revalidate this amortization period to make sure that the one that you were using is appropriate.

The final issue that we reviewed initially was in terms of our stock subsidiary. For those of you who have wholly-owned stock subsidiary companies, you want to review any service agreements or reinsurance agreements that may be in place, especially if they haven't been looked at recently.

Since we were planning on using these statements to manage the company, the obvious choice was to look at it on a consolidated basis, in which case all of these issues would have washed with no impact. However, because of *FAS 113* and the presentation required, you would need to show DAC on both a directed and ceded basis.

The maintenance assumptions should be tied to these service agreements and expense allowances in the contracts. There would also be a shift due to any mortality gains going back and forth between the parent and the subsidiary.

The following is a summary of the resources that were involved in our project. They are listed as internal and external. In terms of internal resources, the first, obviously, was information systems. Because we were interfacing with all our administrative systems, we had programmers involved with each one. The key thing to keep in mind here is that the skill level of the programmers will vary drastically. All of them will be fairly familiar with the systems that they're working with. However, some of them will not necessarily know the products that are going through those systems. Others will have very good knowledge and be able to adjust. I think the key thing is knowing which one you're working with and spending the time to educate the ones that just know the administrative system itself.

Business analysts worked for us in our customer service area. They were familiar with both the administrative system and the products. They helped fill in the gaps where the programmer would be deficient.

The project manager would take care of most of the administrative issues related to the project. The systems manager played a very important role. Here the systems

manager would be the person who would be more familiar with any systems issues that would arise, and it would be much more valuable in resolving these.

There was also a political issue involved in that they would be within the same chain of command as the programmers. This can help speed up the resolution, especially whenever the programmers were pulled into other projects.

Obviously the actuaries would be involved. In addition to having GAAP knowledge, they should have a good understanding of all the products and administrative systems that they're on.

In terms of external resources, we use consultants, both actuarial and software. As I mentioned, the actuarial consultants provided a great deal of input into common practice and interpretations. In terms of the software consultants, this was also very beneficial. Our internal IS people had many demands placed on them and were not always available. In order to minimize the amount of effort they had to put in, we just requested that they dump the data in the easiest format possible. The software consultants, being familiar with the system we had purchased, could take these data and manipulate them into the appropriate needed format.

The last source is the auditors. In our case, it was very beneficial to have our auditors involved in the process. As you complete each set, they can review it, and this would greatly enhance and speed up the audit process.

Also they can be used as a resource if there are any questions as to whether one method is appropriate or not.

As far as data gathering, while we anticipated having problems with our traditional data since we knew it wasn't complete, our more recent lines of business, such as universal life and our deferred annuities, also created some issues for us. The first one was the systems conversion. Mary Ann has alluded to this already.

We had gone through a system conversion three or four years prior. And in this case in order to speed up that process, all contracts that had been terminated more than two years prior had not been brought over. So these data were completely missing and needed to be modeled.

Another issue involved with the system conversion is something we referred to internally as value adjustments. Any two administrative systems are not necessarily going to reproduce the same values exactly. Some of this could be due to rounding, bad data within the original system, or just refusal, when you put in a new system, to modify it to look like the old system.

To the extent that these new values would go to the policyholders' favor, they would just pass through. However, to the extent that they would have produced lower account balances, value adjustments were put in to make the policyholder whole. We viewed this as additional earnings to the policyholder and treated it no different than credit and interest.

Regarding system upgrades, even though you're staying with the same system, the master record layout may change, in which case, your existing data extract routines just won't work anymore. Here you either spend the time to change those routines to get the data, or go back and model the data.

In terms of the archiving of data, if data had been archived and an upgrade had gone through, there is no guarantee that these data would be accessible. Also there may be no one around that knows where the archived data are located.

In terms of retention periods, this one is pretty obvious. If you exceeded a retention limit on the tape, it has probably been scratched, in which case you've lost it. Again, modeling would be required.

The last issue is the data gathering process. We initially defined specifications. This was done in conjunction with the IS personnel, business analyst, actuaries, and the software consultants.

The one thing I want to emphasize is that you shouldn't short this point. The time you spend here is going to be saved in the long run. What you need to do is review every single transaction type within that system and classify how you want it brought in. Here is where the business analyst would be a great deal of help. They'll be familiar with the types of transactions they've seen that you may have overlooked.

For example, for all reversal rewrites you should decide now how you want those handled. If the programmers are really good, you may just leave those out when the DAC scratch the data.

Another example that we came across had to do with lapsed universal life policies. The universal life policy had a loan associated with it. By the time the grace period is expired you probably had a negative cash surrender value. In which case we had to decide whether the amounts collected were allocated to cost of insurance (COI), loads, the surrender charge, or the repayment of the loan amount. In our case, we had decided that the surrender charge would be the one that would be deficient.

As far as test files, you're probably all aware, or you will soon be if you go through this process, that there's going to be a lot of resources and central processing unit (CPU) time required to extract all these data. And in order not to have to do this multiple times, the best thing to do is to create test files including as many transaction types as you can. Then you should scrub check these and try to resolve all issues that may occur so that when you go for a full file, you won't have to redo that. However, it's very possible you're not going to catch everything.

Control reports are very valuable in reconciling back to the ledger. You want to make sure that all the data that you pool can tie back to the ledger. Also make sure that all the data that gets into the file makes it to the system. In our particular case, the software we had purchased provided control reports that were used to reconcile with the data that we had pulled from the system.

The first issue involved with modeling is obviously the source of data to use for assumptions. In our particular case any mortality or lapse studies would be used. One thing that was very valuable were minutes of board presentations for annual results and dividend scales.

These would provide points in times when we knew deviations from expected results would have occurred. We also had available to us dividend specifications for all prior dividend scales, which documented the assumptions that were used in the generation of those dividends.

We had new business analysis reports for every year of issue. This provided us with distributions by age, volume amounts, and average sizes.

Another valuable piece of information was investment year method (IYM) work papers. Being licensed in New York, we had to file these with the state. Luckily we still had those available to do the allocation of investment income.

Another piece of information that would be available are valuation reports. What these provided us with were balances and in-force amounts. In some cases, we had them by year of issue, which was very beneficial.

Regarding investment income/realized capital gains and losses, again we had a separate subproject to go back and review all the IYM papers mentioned before. This was very valuable in coming up with the investment assumptions that were required.

If your company does not have these, then you'll have to go back to your Exhibit 2s and try to do some type of allocation using reserves as proxies. The problem that

you will come up with is that, if the entire block is not using DAC you have to do some kind of additional allocation that is consistent with the determination of dividends.

We had a separate subproject involved to generate expense factors. This was also a fairly time-consuming project. People went back to old ledgers and expense analysis reports and spent time with the auditors to determine what was deferrable and not deferrable, and what was maintenance. Then unit factors were developed that we applied to do back casts for the amount of expenses we would have in our history.

One thing I should point out is that these factors need to be validated at the end of the process.

Historic dividends are probably one of the most difficult assumptions. Historical dividend amounts probably aren't always available. You can get information from policyholder tax files. But any policies that have terminated within the last 20 to 30 years probably aren't available.

Rate books are available, and they have dividends in them. However, they're only going to be for products that you're selling at that point in time. They would only be useable for a couple of years. At least in our case we used to change our dividend scale every two years.

What we had ended up doing was using the dividend testing spreadsheets that we currently used in house. These spreadsheets were used to validate the dividend scales that were put into the administrative systems.

For the most part, the dividend scales have only become more complex. For example, consider annual factors for direct recognition. By taking the assumptions that were in the dividend specifications from prior periods, we were able to put them into the dividend testing spreadsheet and reproduce older scales. These were validated against the rate books that we had available to see if we were generating the right dividends. These were then generated for central ages of major product groups and used in the back casting process.

I just want to give a brief summary of a method that we used for modeling. For universal life and deferred annuities this was pretty straightforward. We had known balances from the ledger that we would be tying to. Once we had gathered our historical data we had to allocate the differences. We estimated the COI amounts, credit interest, and the loads. It took a week or so, but it was very straightforward.

In terms of traditional, we had two known points in time. We had the last known value based on actual extracted data. For us this was 1980. We also had from our new business analysis what our distributions were at the point of sale. It was then taking the assumptions that we had and projecting forward so that these would tie.

Obviously based on normal expected assumptions, there are going to be some discontinuities. However, once we took the deviations that were documented in our reports to the board and reflected those, that brought things pretty much in line.

As far as validation of historical data, everything was validated at a policy level. For traditional, since most of your values are fixed or based on fixed factors, it was just a matter of going through status reports to make sure that, based on the random sampling, we had captured the correct data. In terms of universal life and deferred annuities, we did a roll forward of the transactions that we captured. Once this roll forward was arrived at, it was compared with actual current values, and "out of balance" reports were generated.

These were then sorted by largest differences and then reviewed individually. In a lot of cases once one issue was resolved, many of the discrepancies would be eliminated.

Another issue related to this is that in one of our administrative systems the tabular interest wasn't available. It was basically generated on the fly each time a valuation was run. We backed into it. So obviously the transactions would roll. What we did in this case was convert those tabular interest amounts into average yields and compare them with declared rates that had been set historically.

As far as summary level validation, once we had captured data by years of issue, we rolled them up to summary level. These were checked back to ledger reports that we had available. In our case, I guess we were a little lucky in that we had a management financial statement in place, and we had the data available, at least going back through the 1980s.

One issue involved here pertains to a traditional block. If not all your data is being used, you can only check for reasonableness since the ledger would include all policies.

One thing to point out is that when we captured data, we captured data based on effective date. The intent or the goal would have been on process date, which is the closest thing to a ledger date. However, due to the system conversions, all transactions picked up the data on the date of conversion, and had lost the original transaction date.

One issue having to do with effective date is that we couldn't reconcile death claims to the ledger. At least in our company—I assume most companies are the same—when a death claim is reported, the reserve is released, and the amount is set up in Exhibit 11 for In Course of Settlement (ICOS). When the death claim is paid, the ICOS amount is released and is booked to the ledger account.

Therefore, there could be a timing shift depending on the delay or the lag in processing that claim. We found that when we went to validate our historical death information, we had to take that into account.

The last piece was expenses. As I mentioned before, we had expense factors that were generated through a separate subproject. The units used in developing those expense factors didn't necessarily tie with the actual data that we had gathered. So the factors themselves had to be validated against these new unit amounts. In our case, they had to be revised and then reprojected..

In terms of the ongoing extracts, we pulled actual commission amounts into a file. This was primarily because of universal life. It would be pretty tough to estimate commissions through a formula process, based on target levels and different dumping amounts. This is related to projections of DAC.

Regarding model structure and assumptions, we tried to coordinate all our projection assumptions with other assumptions used within the company: pricing assumptions, corporate modeling assumptions, cash-flow testing, and asset/liability management. Most of our projections were expected to be fairly consistent at the beginning. Differences that would have come up were in terms of the model structure itself.

By model structure I mean the number of cells that would be used: age distribution, sex, smoker, or nonsmoker classifications. With pricing they're only looking at one year of issue. They have probably the highest amount of sales that you would expect. For corporate model and cash-flow testing, these were condensed down due to the amount of time that was involved with doing those projections.

In our case we started by setting up cells for each individual year of issue with fairly detailed assumptions. The intent here was that we would do the initial projection on this basis and then start paring back the number of cells. Each subsequent run was compared for consistency with the more detailed run to see if the paring back would be acceptable.

In the final analysis, the run time that was involved with producing these projections was acceptable. So we had decided not to pare back our cells at all.

When validating assumptions, again here we expected similar results between our DAC projections in terms of premium amounts, benefit amounts, and balances. And what we did was reconcile this against our other model run.

However, we anticipate that down the road this will not always be the case. Where minor changes in assumptions wouldn't be reflected in our DAC projections, it would be projected in our corporate model and cash-flow testing assumptions.

Another issue having to do with validating assumptions is the credited interest rates. Based on the assumptions for the margin used for setting credited interest rates, it's very unlikely, if you apply that to the current yields, that you would be able to reproduce the rates that are currently being declared by your company.

What we did here was grade this in over a two-year period to the assumed assumptions that we had set. The feeling was that if this persisted over a lengthy period of time, we would have to relook at this assumption, but for the present we treat it as a deviation.

Another issue was trending historical to projected. Again, if major discontinuities occurred, we had to analyze and determine why this happened, and whether it was just a deviation such as abnormal mortality experience for the year or a trend that was being developed.

For validation of the amortization period, when we came up with our initial amortization periods, they were based on some rough estimates or what we felt was appropriate. Once we gathered all our data, had our model set up, and could do our projections, we tested longer amortization periods. We let the projection go five years longer, took a look at the amortization ratio that was produced, and compared it to see if there was any significant changes from the one we were planning on using.

Our feeling was, if it did change significantly, that we had probably picked too short an amortization period. In fact one of our products is deferred annuity blocks. We ended up increasing the period by five years.

The last issue I wanted to talk about was *FAS 115* and the impact of shadow DAC. As you're all aware, unrealized capital gains and losses as defined by *FAS 115* will produce a shadow DAC affect. From a pure theoretical approach the DAC equity amount would be calculated based on redoing your amortization ratios reflecting the unrealized gains that actually occurred and the interest rate yields that would have been associated with that. However, this would have produced some problems for analysis.

For example, more recent years of issue would have had the full affect of the revised yields, with minimal or minor impacts to the actual unrealized gain or loss; however, your older blocks that were just running off would have almost no impact of the revised yield, yet a much bigger impact due to the unrealized amount.

In our case, we've used an approximation that was to take a weighted average of our current amortization ratios and apply that to the unrealized amount. In discussions with our auditors this was an acceptable, apparently fairly common, practice. It's also much easier to analyze.

Another thing that may come up with the terms of the shadow DAC, and I don't really have an answer for you, is that you're probably only going to receive information on unrealized gains or losses a day or two before you have to book your DAC amounts. When you do your first restatement, you'll have plenty of time to analyze the impact of realized gains or losses. If you restate any prior quarters, this will give you another shot at seeing what the impact is. This will at least give you some basis to use for comparison when you go live and only have that one day to review.

**Mr. James B. Milholland:** If you weren't already aware of it, you can see from Mary Ann's and Ron's comments that the conversion is a formidable task. But we're going to assume now that you met the challenge, and you completed your GAAP conversion. Now you're looking for some benefits from that conversion other than just to be able to say, "I do GAAP and I can get a standard opinion."

GAAP is often touted as the better basis for financial management of life insurance companies. Unless yours is a very simple company, the GAAP-basis financial report will tell you only how you're doing overall. It typically does not provide sufficient detail to help assist management activity. By planning now, during the conversion process, a company can design and implement an information system that will provide the key measures and indicators needed.

GAAP finances are rule based. Management information systems are custom designed to take the form you desire and vary significantly from company to company. They all attempt to answer a few key questions about the financial results. Are we meeting our financial objectives? Where are we doing better or worse than expected? Which lines of business are adding value? Which are not?

Even mutual companies are compelled to demonstrate that they are meeting expectations, and frequently, especially after a GAAP conversion, the expectations begin to be expressed in terms familiar to stock companies.

The Wall Street mentality is infectious. Markets reward consistent growth and profitability, as indicated by market capitalization. Management, in general, might prefer to work on improving growth and profitability, one or the other, but in the current environment, companies are challenged to continuously improve both.

Financial information systems when properly constructed provide feedback systems to help management understand where growth and profit objectives are being met, so actions can be directed towards building on success and making changes where appropriate.

A good financial information system provides the means for those of us who are not in operations to add value to our company. A good management system can help target and focus managements efforts in the area of capital allocation, timely corrective action, and other strategic initiatives to add value.

Here's our chance to measure in a way that can be meaningful and can be our contribution to adding value.

A financial information system is not necessarily GAAP-based. Many companies manage by embedded value systems. In the U.S., in particular, GAAP measures are more common because they relate to the financial results provided to owners. They're based on an objective set of rules; and they don't require a separate valuation system.

At the same time, the GAAP basis system has all the limitations and shortfalls of GAAP. It is important to keep in mind that the measure is not the message. More important is how management reacts to the measure.

We've all witnessed management reacting, and sometimes overreacting, to a change in a key measure. The selection of measures is one of the most critical phases in designing a management information system. With the current emphasis on growth and profitability, measures, such as growth in revenues and return on equity, and growth and earnings per share, are usually on the list. Other important measures relate to capitalization and leverage.

Return on equity (ROE) has become the premier benchmark in the financial world. In order to determine if financial results are satisfactory, management must agree on a hurdle rate; that is, what ROE will be deemed satisfactory? Most companies develop benchmarks based on industry norms, ownership expectations, and other factors. An ROE measure requires the company not only to set up the hurdle rate, but also to define the appropriate amount of required equity. Many variables come

into play, such as risk, volatility, regulatory constraints, business environment, and competition for capital.

No company can consistently produce a uniform ROE. For example Company A may be consistently in the 15% neighborhood. Company B consistently underperforms. As a result, the share price of Company A represents a health premium over book value or clear value added. Company B cannot point to a significant value added.

One advantage that Company A enjoys is the ability to understand which of its core businesses are contributing to the value added. It has the ability to measure earnings by line of business. It has the ability to identify where targets are being met. Having measured ROE, the company knows how it is doing, but not necessarily why it is achieving or failing to achieve its desired return. An analysis of variance begins to give insights into why the company performs better or worse than expected.

A proper financial system provides financial measures on a timely basis, generally no more than a few weeks after the GAAP financials themselves. This requires a systematic approach to the data gathering, where data are not directly available to the allocations of, for example, capital, investment income, and general expenses. As noted, a target or benchmark of expected results is also required.

The initial analysis is usually a comparison of plan to actual. The plan is typically produced by a financial model derived from financial projection and based on input from sales, accounting, and other areas. It is commonly produced as a product of the annual planning and budgeting process. Actual results are generated from accounting information systems. Variance is simply the difference.

Having identified variance, the next obvious step is to begin to understand what caused the variance. An accountant's analysis of variance attempts to break differences into volume and rate differences; for example, more policies are sold but at a lower average premium, explaining the premium variance. Actuaries frequently do not directly attack the income statement but seek to understand the bottom line differences as actuarial gains and losses; for example, mortality gains spread differentials. The third element which confounds the analysis, is model differences. This component of the variance may relate to some lack of precision in the model.

The system that works best is the one that focuses management's attention on the key drivers of profits. The actuarial approach seems preferable, but it could be confusing to the person who is trying to relate variances to the income statement.

A related topic is the form of reports, the amount of information provided, and at what levels of management its provided. Generally information is provided in detail to business unit heads, but more succinct information is provided as it is rolled up to higher levels of management. It is important to design a board level report that is meaningful, succinct, and sufficient for the purposes.

In evaluating success, a company must review results in consideration of risk. Euphoria over terrific results today can be quickly dashed by inevitable disappointment from a risk- filled balance sheet. The industry has seen how high-risk investments allowed companies to report good earnings for a number of years but created severe difficulties, even insolvencies, later.

Incorporating risk measures into a financial measurement system is an art we have not mastered. Addressing risks in a financial management system presumes that the company has a risk management program that has identified the appropriate measures.

Incorporating these into a GAAP-based financial reporting system is one of the greatest challenges in developing an adequate financial measurement system. In the current state, risk is typically addressed by supplemental measure and scenario testing. At this time, there is no commonly accepted holistic approach to financial measurements and risk evaluation.

With the advance knowledge that a GAAP conversion will lead to demands for a management information system, the planning for the system should be concurrent with the conversion. The steps are similar to those for the conversion plan itself. The execution can be concurrent or the financial analysis can be developed following the GAAP conversion. Either way, the lesson is that, by thinking ahead, the GAAP conversion can be conducted with an eye on an eventual information system.

**Mr. Peter P. Wu:** I have a question on using GAAP for the variable annuities. We do know that there is a minimum death benefit. And I think there is a school of thought that when you projected that for the GAAP assumptions into the future, you ignored the cost in the assumption. But you just reflect that, when it appears. In other words, when the death benefit nearly appears then, you reflect that in your DAC calculation. In your GAAP assumption you ignore that.

And the other thought is you can estimate the kind of cost there, and then reflect that in your GAAP assumptions. So I'd just like to find out your opinion. The other thing is the company also can get reinsurance coverage. Whether you want to use

it or not, you have the reinsurance coverage there. Apparently, you want to reflect that in your GAAP assumptions.

**Mr. Milholland:** I want to take a shot at that. I guess that there are *FAS 97* investment contracts and that you are asking about the appropriateness of a provision for mortality costs in the expected gross margins.

**Mr. Takemoto:** In our particular case, I assume your question is in terms of the amortization of DAC?

**Mr. Wu:** Correct.

**Mr. Takemoto:** We reflected an assumption for mortality and the appropriate death benefit and just let it run through on that basis. There was mortality assumption as well lapse related to our variable annuities.

**Mr. Wu:** So the cost is reflected.

**Mr. Takemoto:** Right.

**Mr. Beuerlein:** Jim, would you like to add something?

**Mr. Milholland:** I would agree with Ron. I think that obviously the problem with minimum death benefits on the variable annuities is they're impossible to project with any degree of certainty.

But it seems like there ought to be some provision for it. To ignore it is the wrong answer. What's funny here is it may be conservative to ignore it. You really don't know until you run the models, which gives you a conservative DAC amortization.

**Mr. Wu:** Yes, I think the first school of thought is they are doing the variable annuities as an investment contract. And so with the investment contract, they view the death benefit cost as incidental. They want us to ignore that. But I think the second approach, Ron's approach, is what we prefer to use.

**Mr. Milholland:** I think reinsurance is similar. We see companies reflect reinsurance in their *FAS 97* margins. We've seen companies treat reinsurance as separate, and it doesn't go through the margins. So I think it's done both ways. Again it would seem to me that it's more appropriate to put it in the margins as part of the cost of the contract.

The tricky part is the allowances are frequently not level. And so you may have an offsetting DAC in your allowances that's generated, too.

**Mr. Bryn T. Douds:** You've indicated that there's hope that GAAP would provide better management information. I was wondering why you think that? My sense is that, when moving from statutory to GAAP, particularly for a mutual company, you've substituted one arbitrary accounting model for another arbitrary accounting model.

**Ms. Peltier:** I think from Shenandoah's perspective it's not so much that the GAAP is providing the better financial information as much as it is providing us the opportunity to build additional financial reports that will get us there.

Analyzing the variances between the various assumptions that go into our products is easier to get to from a GAAP financial statement than it is from a statutory statement. I think that's really our perspective. It's not really the GAAP that's giving us the better information, but it's the tool to get us to focus on it in a better way.

**Mr. Milholland:** I think your point is well taken, at least in a couple of respects. It's just important that you don't become so focused on GAAP that you forget about surplus drain and risk-based capital. At the same time I think GAAP has always been more attuned to your intuition of what happens. When you do things in the company that you think are good, like sell more business, and you believe that business is profitable, your GAAP results typically improve, as opposed to your statutory results.

So, for that reason, it's generally considered to be better that you can (when you're doing things right) get better bottom line results under GAAP. In statutory, you don't always.

**Mr. Brian C. Campbell:** One of the problems that you see with some of the *FAS 120* products is that you get profit streams that have timing spikes in them. I'm curious. What are some methods that you might have used to deal with those?

**Mr. Takemoto:** I've not dealt with that specific issue with intermediate types of spikes or valleys as the case may be. Now the guidance for *FAS 97* products does say, if you have significant negative margins in certain years, you can opt to use an alternative amortization pattern. That amortization pattern may be on gross margins, rather than net margins, or it could be some other more appropriate basis.

So that would always be, I think, a possibility by analogy. We do sometimes see products that have dividends heavily back ended, which is a very steep scale. The gross margins are much larger in early policy durations than in later ones, when they are small or even negative. That observation points out the need to do some sort of profit testing, if you will. Understand the patterns, and see if they make sense. If you have that pattern of late duration negatives, you need to reserve for that. You can't let that happen. You can't let those negatives actually come through. You have to hold back some of that early profit as funding for those late-end duration losses.

**Mr. Douds:** I can comment on that. It's probably an issue of, are you modeling an entire block of business and looking at the margins that arise from the entire block? Or do you look at it at a much more refined level?

If you took issues from a particular month, say if you have a large portion of annual premiums, you'll have a lot of premium come in. Down the road, you'll have dividends being paid out in the last month of the year.

So if you're doing a monthly projection for that particular cell, it has a very large positive margin. At the end of the year it has a very large negative margin. I guess the approach we were taking is that we would spread them throughout the policy year.

**Mr. Takemoto:** In our case, where we detailed cells for projection, the amortization was actually done on a year-of-issue basis, so that all the individual projections for the cells were rolled up into one worksheet for the year. Then the amortization was performed, as opposed to doing it at a cell level.

I'm not sure if that's what's causing the difference in what we saw, versus what you're saying.