

**1997 VALUATION ACTUARY  
SYMPOSIUM PROCEEDINGS**

**SESSION 22**

**Practitioners' Forum II**

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**S. Michael McLaughlin**

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## PRACTITIONERS' FORUM II

**MR. ROBERT A. LYLE:** The purpose of this forum is a little different than most of the sessions at this symposium. Our goal is to identify and discuss some of the major issues and concerns that ought to be on the minds of actuarial managers and senior actuaries as they look at the environment. We're going to look into the future and see some of the things that may be coming at us, things that we ought to be thinking about today as we prepare for tomorrow.

As I thought about this and prepared for it, I was reminded of the work of Stephen Covey. Covey talks about a simple means of time management. It's a very simple scheme, but one that I have found very effective in my work. He talks about two dimensions of looking at a task when you try to prioritize. One dimension is that of importance. He characterizes a task as important if it will add in a material way to the accomplishment of your goals and objectives. If it doesn't, then it's not important. The other dimension is urgency. A task is urgent if there's some outside force or pressure that's causing you to get that done, and if that outside force is not there, it's not urgent.

You can look at those two dimensions, and use them to create a two-by-two matrix that he labels (in good actuarial form) Quadrants 1, 2, 3 and 4 in order of priority. Covey would state Quadrant 1 is obvious. The things that are both important and urgent tend to take care of themselves. That's where we tend to focus our energies. Likewise, Quadrant 4 is those things that are not important and not urgent. Most people would put those things at the bottom of the list of things that they need to do. Covey really makes the pitch that in managing our lives and being effective, we need to discriminate between Quadrants 2 and 3. Quadrant 2 is those things that are not urgent today but are important, and he says that's where we should put our emphasis. Quadrant 3, the things that are urgent but not important, often crowd out the things that are in Quadrant 2. Our natural inclination is to go to Quadrant 3. Covey literally preaches that we should do some Quadrant 2 stuff every day -- things that are important but aren't necessarily urgent today.

## 1997 VALUATION ACTUARY SYMPOSIUM

I hope we will help you understand some of the things that ought to be in Quadrant 2. These are things that may not be urgent, and that may not be burning issues today, but they are things that, as we look ahead to the future, we ought to be thinking about and beginning to prepare for.

The panel that we've put together is eminently well-qualified to talk about this subject. Steve Patzman is vice president and corporate actuary at USAA Life in San Antonio and serves as both the valuation actuary and the illustration actuary at USAA.

Jerry Lockwood is senior vice president and corporate actuary at Union Central in Cincinnati. Jerry is the appointed actuary at Union Central and is responsible for corporate planning, corporate financial management, asset/liability management, and oversight of the product and pricing functions.

Mike McLaughlin is a partner at Ernst & Young (E&Y) and national director of its life actuarial services. Mike has experience in all areas of life practice, and in his personal practice, he has spent a great deal of time interacting with senior actuaries and company managements.

Finally, I am vice president and corporate actuary at Aid Association for Lutherans in Appleton, Wisconsin. Three of us on the panel are serving and have served for a number of years as corporate actuaries in our companies. Mike has spent a lot of his time dealing with us corporate actuaries.

We have identified several issues that we would like to talk about, and we will have some interactive discussion among ourselves about these issues. As we conclude with each issue, we're going to afford the opportunity for some audience involvement. Steve is going to lead off with the first issue that we're going to talk about, which is the notion of how do we communicate risk issues to boards and management?

**MR. STEPHEN N. PATZMAN:** As Bob indicated, I want to start off by talking about communicating risk to management and the board. As corporate actuaries, we all have a

responsibility to make sure that our senior management is aware of the various things that are going on and the risks that are associated with a company. I have been reanalyzing what my responsibilities are. One of the first places I went to was the Actuarial Standards of Practice (ASOP) to see what guidance I'm given about what I should be doing. There are a number of places in the Actuarial Standards of Practice that indicate that you should be reporting to the board of directors or providing documentation of your work.

What are the standards of practice? What should I actually be doing? How much should I be doing? What's expected of me? Bob didn't mention that I'm also on a number of industry committees. One is the Committee on Life Insurance Financial Reporting (COLIFR) which is an arm of a committee of the American Academy of Actuaries. It is COLIFR's responsibility to develop practice notes where appropriate. There are a couple new ones that are coming out. It became apparent to COLIFR that another possible practice note was necessary -- one on how chief actuaries or corporate actuaries are supposed to report, and should they be reporting to their boards to stay within the guidelines of the laws and the Actuarial Standards of Practice?

I'd like to take a survey of the audience. The survey has gone out for this practice note. Who in the room actually received that survey? It looks like about a fourth of the room. How many of you are also designated as an actuary who does some signing, a corporate actuary, or something else? A few more. So there are a number of you who have not received the survey. I'd like to, when you get back to your company, try to find out where the survey is. It was sent by the American Academy of Actuaries to the person who's called the chief actuary within the company. Somewhere on the membership renewal a person can designate himself or herself as being the corporate actuary, chief actuary, chief honcho actuary, or whatever.

There are five parts to the survey. When you go through the annual statement and the ASOPs, there are areas within those documents that indicate an actuary should be signing, certifying, or whatever. By show of hands, who signs the jurat page on the annual statement? About half the people. You have a responsibility there. There's also part of Exhibit 8(a), the interrogatories on the interest rate

## 1997 VALUATION ACTUARY SYMPOSIUM

adjustments. How many people in the room have signed that? Looks like, again, about half the people. Also, for those of you who have dividends, there's a Schedule M which means there's a certification there. Has anybody signed that? Not as many. Finally, part of the annual statement is the asset adequacy analysis and the actuarial opinion and memorandum. Who signs that? Just about everybody. And then the other new certification, which is not part of the annual statement that we also have to sign, is the illustration. Is there anybody who does that? A couple.

These are all documents that have to be signed. What are you supposed to be able to communicate to your management about the risks and various things associated with those documents? That's what this survey is trying to find out. It's going to ask you for what you do and how much you do. Remember to answer this survey when you get it. I hope that all of you who have received it have actually done it and sent it in. There are no wrong answers. In a practice note there is no wrong way of doing things. Hopefully you will be honest and forthright in your answers. I was chairman of the COLIFR committee that made up the survey, and I had to go through and fill it out myself. I thought, I don't do as much as I think I should be doing. It makes you think about what you should be doing. I would encourage all of you, once you get back, to look at the ASOPs or what you should be doing and go from there. I think we also have a responsibility, as corporate actuaries, of letting the management know what's going on and how much we're doing.

I know we still have a way to go at our company in how much we tell the board of directors. We provide them the 20-page summary of the actuarial opinion, they're welcome to read it, but we don't really do an awful lot of educating. We're moving into a new phase in our company where we're going to start doing more educating and presenting. We want to make the Board more aware of what the impact and risks are. Does anyone on the rest of the panel want to indicate what they've seen and what they're doing in terms of reporting these various risks to management?

**MR. S. MICHAEL MCLAUGHLIN:** I'll make a comment. We've done quite a bit of work in my group in Chicago with mutual companies adopting GAAP for the first time. We conducted a session that talked about that. One of the key issues that comes up typically toward the end of the

project, typically after numbers have been generated, is how do we communicate then to management? For a couple of companies, we've literally worked with the staff to put together training sessions or brief presentations geared to members of management, the workers who will actually use the data, senior management (who needs to interpret the data and make decisions on it), and boards of directors. It seems to me that the actuary has tremendous responsibility to carry out that communication with all those levels, and should provide education, discussion, explanation, and confidence building.

**MR. LYLE:** The issue of risk management seems to be a hot topic lately that is sometimes ironic. We, as actuaries, have dealt with risk management for as long as there have been actuaries. Lately there seems to be a lot of interest in risk management. At the Chief Actuary's Forum that was held earlier this year, risk management was the single highest priority issue among a group of 40-some chief actuaries who attended. There are, I believe, several seminars coming up in the near future sponsored by the Society on various aspects of risk management. It simply seems to be a very important topic and one that I think many are concerned about. I know that within my company, we have gotten much more involved in asset/liability management. Our managers and board members are interested in knowing what's going on. They have questions. They're looking for information. Giving that information to them in a useful and informative way is a real challenge. I think it's a challenge that most people have.

**MR. PATZMAN:** Hopefully the survey with the feedback that we're asking for will provide some guidance. What do other companies do? That's really what we're trying to accomplish, and hopefully you'll help us out.

**MR. GERALD A. LOCKWOOD:** I think we're going to find there's going to be a lot of diversity in the practices, and I think that partly comes out of the culture in the companies. In my particular company, we have a larger senior management group of which I'm fortunate to be a part of. In those regular meetings that we have, I have an opportunity to get both risk issues and general informational issues that senior management should be aware of on the table. In other companies, if you're not

## 1997 VALUATION ACTUARY SYMPOSIUM

directly linked into that sort of a process in meetings like that, I think you have a responsibility to try to find other avenues through your direct report or other formal ways to try to pass on concerns you might have about risks or opportunities you see for your company. I can see where one of the real issues is going to be culture in companies and reporting structures in organizations. When we go back to the ASOPs and the requirements that you see in there, for a long time there have been requirements for documentation and, in effect, preparing actuarial reports for management, whatever management is.

In our company, for over ten years (since the ASOPs started coming out), whenever there's a requirement, we've been fortunate enough to get every actuary who's doing that kind of work to prepare a formal document, and over time, those have evolved. That formal document is an opportunity that the actuaries have for documenting the work that they've done. They now seek, in retrospect, that it has real value three or four years later when they go back to figure out what they did. What's more important is it provides that opportunity for communicating findings, results, concerns, or management issues to their bosses, to their strategic business unit (SBU) heads or their product managers.

I think there's a lot of different, creative ways to use our reporting process or our reporting requirements in ways to communicate information to senior management. I do think it's going to have to probably vary by company and cultures.

**MR. LYLE:** Does anyone in the audience have anything that they would care to add to this discussion?

**FROM THE FLOOR:** Was the survey sent to consultants?

**MR. PATZMAN:** No, it was not. Only to companies.



**FROM THE FLOOR:** What about consultants who prepare actuarial opinions for client companies?

**MR. PATZMAN:** There was a lot of discussion, but I think the final decision was that it should only go to the companies because they're the ones actually signing it. If the company uses a consulting actuary, the company is asked to send it on to that consulting actuary to fill it out. You may get it through the back door.

**MR. LYLE:** The question pertained to the distribution of the survey that Steve talked about.

**MR. LOCKWOOD:** I have a question, Steve. The survey, when it initially came out, had a pretty short reporting deadline. Is that being extended? Is there an opportunity for people here to, say, call to Academy and get a copy of it and still participate?

**MR. PATZMAN:** As far as I know, there is. The cut-off date was September 5, 1997, but when I talked with the Academy, they said surveys were still coming in. They had not started to compile anything.

**FROM THE FLOOR:** Are copies of the survey available?

**MR. PATZMAN:** I've got a copy of it up here if you want to look at it. It's a memorandum from the American Academy of Actuaries.

**MR. LYLE:** I think we'll move on at this point. Mike is going to lead our discussion of the next issue.

**MR. MCLAUGHLIN:** This is the second of several important issues. Bob gave us a little counseling as to the differences between important and urgent and how to select the appropriate area to emphasize in your daily work. Importance is in the eye of the beholder. The actuary should

## 1997 VALUATION ACTUARY SYMPOSIUM

understand the purpose that is to be served in order to make a decision as to what are the important tasks to pursue.

The particular task I'd like to talk about is capital management. I got to thinking about the difference between capital management and asset management. I think we're all quite clear as to what the difference is from the point of view of the insurance company. The assets fit many different categories. We balance these in amount and yield and in other characteristics. The capital is the amount provided by investors or by the outside world or by policyholders themselves. Those are amounts that we are commissioned, shall we say, to manage. But from the point of view of the owner, there are many similarities and only a few differences between capital and assets. So the owner of capital or the contributor of equity to a company expects these assets to be managed. They'll be invested by professional people, presumably, to produce a return. Likewise, the same applies with assets in an insurance company. We have professional people who manage and invest those assets to generate a return.

Either assets or capital might be subject to loss. Typically, assets, especially those chosen by insurance companies, have a relatively low risk of loss. It's appropriate for our type of business to select assets that are relatively unlikely to default, and in our various work, in our modeling and so on, we oftentimes build in probabilities of default in assets that are very, very low, 1% or a fraction of 1% depending on the class of asset.

One of the major differences between assets and capital to the owner is the probability of loss. If an owner of capital contributes it to some profit-making venture, some insurance company, or some other opportunity, the owner is typically more willing to experience loss or, if not willing, the owner realizes that there's a significant probability of principal loss.

What I'd like to do is survey this audience just very briefly and ask, just to get a sense of your own perceptions, the difference between owning an asset and owning capital. How many own at least one common stock, one share of common stock, in some publicly traded company that you bought

yourself, and not through your mutual fund or your 401(k). We have probably 50 people in the room saying yes. I would say two-thirds are owners of capital. If you have a material portion of your personal net worth invested in equity or invested in capital of a publicly traded company, then you know how the owner or owners of your company feel. I realize that there are mutuals or fraternal, and the ownership view is a little more diluted. Nonetheless, there is an owner.

I remember, as a young actuary, meeting the owner of my company and being very impressed. This was a wealthy, older gentleman named Charlie Sammons, and he borrowed \$10,000 back in 1930 and turned it into an insurance, cable television, and travel agency conglomerate. I remember thinking this is a person who has accomplished a lot with his capital. It seems to me that you need to understand that in your role as the valuation actuary, or the illustration actuary, or the corporate actuary, particularly if you're in a stock company. I think your mission is to assist in the management of capital. You need to decide which of your day-to-day duties are important in light of managing that capital. I think it's vital to understand the perspective of that contributor of capital. It's a diluted situation, for example, for policyholders of a mutual company. A widely held stock company has many, many stockholders, but you can be assured, if you've been to a stockholders' meeting, or if you have some interest in mutual funds, that there are owners of this common stock that take a very keen interest in the way the company is managed.

So from the inside of the company that is looking to manage that capital, the owner does not want idle cash. If your company has excess amounts sitting around that are not adequately deployed, then there's an important task that the actuary would need to assist with. If, on the other hand, you're short of capital, in the short term it may help to boost your returns on the limited amount of capital, but it increases risks to the owner of that capital to a level that's not acceptable. Some risk is okay. Excessive amounts are not. To the extent that there's insufficient capital, part of the actuary's duty is to comprehend that and to do what he or she can in order to remedy that situation either by aiding and raising capital externally or internally.

## 1997 VALUATION ACTUARY SYMPOSIUM

The owner or contributor of the capital typically understands the business that is being performed by his or her company. Professional managers are put in place to sell insurance products or annuity products or health care, whatever it may be, and the owners may not understand the details but certainly understand why they are in business and what the corporate mission is. They are expecting certain returns and management of the level of return relative to the risk that's undertaken.

As a manager or co-manager of the capital in the company, the actuary needs to anticipate the need for additional capital, where it might occur, and it should help to acquire additional capital whenever that's needed. He or she should allocate available capital to its best use and incur no more than an acceptable level of risk. In pricing, this means taking into account the likelihood of large versus small returns and the probability of those returns. A key job for the actuaries is to monitor and measure the use of that capital. I think we're typically quite good at that, although we may not always understand the true importance. We need to assist in paying dividends or interest to the contributor of the capital.

I'll give one other brief story. I visited a company that had two distribution systems. One was a career agency distribution system. They were selling typical traditional insurance and other types of life insurance and annuity business. There was a second distribution system, a small start-up, somewhat experimental venture for mass marketing through direct mail. As further background, I'll just say that the start-up venture and direct mail was doing quite well. The direct mail marketers wanted more capital allocated to that line of business, and the company was hesitant to do that because it was perceived as more risky. It was experimental. Why not wait to see how well this venture does? We were visiting the company and looking at their use of capital. We asked them what were the relative returns on equity of these two distribution systems. There wasn't a very good answer to that because resources were insufficient. There was no one around to allocate capital, assets, investment income expenses, and so on. We couldn't answer the question.

Then we thought, why don't we look at the pricing returns on equity and for the traditional products? We looked at pricing, and the traditional products were priced to return something on the order of

a 10% return on equity, internal rate of return. The direct products were priced to return about 20% return on equity. And so, there was a substantially greater return from the direct mail products in this particular case. Yet the company hadn't looked closely enough or wasn't perhaps being quite diligent enough in their management because more capital was being allocated to the traditional, career distribution system. On closer look, after completing the project, it turned out that we had overstated the returns on the career products. So it wasn't really a 10% return on equity -- it was more like 5%. We understated the direct mail. After reallocating expenses more equitably, we thought the returns on the direct mail products were more like 25%. Once that was understood, it became very clear where capital should be allocated. Even after getting all that information, the company still found it difficult to change priorities, so there still was only a very gradual opening up of the pocketbook, so to speak, to allocate more capital to the more aggressive, better performing product line. That's a perfect example of where actuaries can play an important role.

I'll just close by saying that I think some of the specific areas in which the actuaries can support the expectations of the owner of capital are the typically strong areas for actuaries. I think some of the areas that our training and experience qualify us for are those very important areas that the owner of capital expects us to manage: forecasting capital needs; maximizing returns from existing and new business; minimizing product risk; minimizing company risk; setting reserves no higher than necessary, consistent with statutory and other requirements; and, reflecting the benefits, obligations, and risk inherent in the product. The objective is to leave adequate capital available for other purposes, measuring performance of product lines and business units, and, above all, communicating what's being done to senior management and to the board. Then we can get feedback as to whether what we do is important or unimportant. Those are my comments. I would be curious to hear from other panelists or the audience as to other areas or other duties or other perspectives.

**MR. PATZMAN:** Regarding capital management, the rating agencies also put their two cents in and tell us how much we should have. That has a real impact on whether you have too much, too little, or not enough.

**MR. MCLAUGHLIN:** I think the rating agencies would say that they are acting on behalf of investors. They have analysts. Standard and Poor's, Moody's, Duff & Phelps, or Value Line or big Wall Street houses like Morgan Stanley, might very well say that they're acting on behalf of the stockholders. They're acting on behalf of the market. They are asking questions and placing demands and probing on behalf of stockholders.

Maybe some individual stockholder can't easily call up senior management or the board of directors, and say why is there excess capital in this company that's not being adequately used, or why is this company operating on relatively thin capital margins, thus unduly increasing the risk? The SEC's rules and regulations and monitoring really are intended to protect investors, particularly individual investors who are somewhat widely dispersed and don't have the opportunity to speak up on their own behalf as vocally as they could. A very large shareholder, of course, can manipulate management of a company, sometimes excessively, but that's what the rating agencies do. The regulators are focusing more on the minimum end of capital requirements.

**MR. LYLE:** I think that in today's environment we see a lot of continuing activity in the area of mergers and acquisitions. I think we're more often seeing joint ventures between the different companies, and I don't think anyone is predicting any of that activity to go away. Certainly this perspective of capital management is going to continue to be important as those kinds of things occur, and, as Mike had said, I think it's just terribly important for the actuary in his work to have the perspective of capital management as well as all of the other perspectives that we need to take in doing our work. It's important to other people, and, therefore, it ought to be important to us.

**MR. LOCKWOOD:** I agree with that. I think capital management is a very important function for the actuary and mutual companies to be involved in. My company happens to be a mutual company, and capital management is very important for a variety of reasons, including monitoring and managing the amount of capital we have allocated to the lines as well as monitoring the returns by product line for the benefit of the policyholders who are our owners. It's that kind of a philosophy or way we look at it. I'm interested in getting a sense as to how many of you have an active

management of the capital in your companies, i.e., where there's an allocation of capital to all the different product lines, combined with monitoring returns to all the product lines? How many companies have that in place? About half. I think that's a key thing for senior actuaries to be thinking about. If you're in the role of a corporate actuary or chief actuary, I think that's one of the key aspects of managing the company, and it all goes back to product pricing in the end.

**MR. LYLE:** I have an anecdote from the perspective of my own career, of which 25 years has been spent at a fraternal benefit society. Twenty-five years ago when I started, *profit* was a word that we weren't allowed to use. As a not-for-profit organization our legal folks got real excited if we even used that word aloud. Profit, of course, is inherent in all insurance activity, and even a fraternal, like a mutual, needs to have profit to grow the surplus to support the business. Today our management is very savvy on the topics of profit and capital management. They're very concerned about those kinds of things. That's a change that I've seen in my own environment. It's maybe a bit unique but it certainly is an important topic.

I think we'll move along, and Jerry is going to introduce the next topic which is, I think, kind of an intriguing item to think about. He's going to talk about potential instability in financial markets.

**MR. LOCKWOOD:** This time the topic is one that I personally think is very important for all of us to be thinking about and for our companies to be thinking about. It's the whole issue of potential instability in the financial markets. I want you to get your thinking caps on, and I'm interested in some feedback from the audience. The issue is that the financial markets, the bond markets, the stock markets, the commercial mortgage markets, and so on, if you look at them in a longer-term perspective, have really been relatively stable over the last several years. I'm talking about a 10- to 15-year perspective. Interest rates have been generally declining since the early 1980s with no significant periods of volatility. There have been ups and downs, but the long-term trends have basically stayed the same. Stock markets have been bullish, even taking into account the market crash or so-called market crash in 1987. As a result, interest margins and persistency rates on

## 1997 VALUATION ACTUARY SYMPOSIUM

interest-sensitive products have been relatively stable and, in many cases, are as good or better than pricing expectations.

We've also seen the introduction of some new asset types, new types of products such as the equity-indexed products that are getting so much discussion at this meeting and over the last year or two. Another development has been the introduction of market value concepts into GAAP accounting, at least on the asset side of the balance sheet. There is much work on the liability side. If you think about this period we haven't been in such a bad world from interest rate risk management and managing of earnings points of view. There has been a lot of work and development going on.

How well-prepared is the life insurance industry, and how well-prepared is your company for a period of instability? How well-prepared are we for, say, a rapidly-rising interest rate environment? Say it goes to a new level and stays there for a while. The flip side of that is how well-prepared are we for a sustained bear market? What would that do to the variable annuity type products, those kinds of products versus the fixed products? And the other scenario is how would it affect the fixed products? How well-prepared are we to manage through those kinds of scenarios? I'd just kick it off. In my company, 10-15 years ago, I'd say we weren't really prepared at all. Over the last ten years, we've spent a lot of time trying to understand our risks and our risk profile and developing management strategies on the investment side as well as on the liability side for managing through different interest rate environments and different economic scenario environments. It's important to manage through this kind of a major change in the economic environment and to be prepared for that.

Our company has spent some time in putting those strategies in place but, in general, how well-prepared do you think the industry is? I tend to think we're better off than we were 10 or 15 years ago, but how well will we fare in that kind of an environment? I'd like to throw that open to the panel and to the audience.



**MR. PATZMAN:** Jerry, I think this comes down to cash-flow testing. We've gone beyond doing the annual report. On a regular basis, and almost weekly, we try to make special runs of various segments of our products to see what happens under various scenarios. We do stress tests on a regular basis, and then we try to report back to our investment managers that when you do these certain kinds of investing, we get these certain results when the market goes haywire or whatever.

I guess my concern here is that we're doing much of this testing in a vacuum. I come to these meetings. I'm afraid to tell you exactly what we're doing and what kind of results we have because of antitrust.

Is sharing this kind of information really an antitrust violation? Do I really have a concern, or can I comment here today? We did this test with five-year to seven-year bonds in this type of market and got this kind of result. Are you getting the same kind of thing? Am I doing something wrong? Do I understand the problem correctly, or is it really a problem. Did we really find a niche where, yes, we can do something? I think that's something that should be addressed. How can we better communicate among ourselves and not all spin our wheels doing the exact same thing? We're not doing it for pricing. We're doing it to make sure we save our necks. Since we're all corporate actuaries and have to sign these things, we don't want the company to go under.

**MR. MCLAUGHLIN:** In terms of antitrust, I would say there is very little to fear, as long as you stay clear of pricing issues and the availability or lack of availability of certain products and certain market levels of pricing. I think the whole purpose of meetings like this is to advance actuarial knowledge, and so, through sessions like this and through informal discussions between individuals, I think the quality of the work that we do improves all the time. Some of us are old enough to remember the days before cash-flow testing was performed regularly. I think the first year or two we had valuation actuary symposia, the state-of-the-art technology was extremely primitive. We've moved very far forward in terms of our ability to quantify risk, measure risk, manage our products, and manage our assets. We've made tremendous strides. This is not to say that we can't learn more

and do an even better job of cash-flow testing and asset/liability management, risk management, and so on. I think the knowledge is there.

I still occasionally come across companies where cash-flow testing is performed in a somewhat perfunctory manner so as to meet state requirements. You must have it in by the end of February, or whatever is the appropriate date to get your filing in. That's why this is done, and it's not being used as an advantage to manage risk and to prepared the company for the kinds of exposure that it might face in unstable capital markets. That's where I think work perhaps still needs to be done in motivating and inspiring all companies to use some of this type of work to minimize their exposure.

**MR. LYLE:** I think Mike hit the nail right on the head there. The key is using the tools and the information that are at our disposal. I would agree. Cash-flow testing has become almost perfunctory. We've gotten very good at it. What we are not good at is the challenge that Jerry throws out, which is using the information to ask the kind of question what would we do in this sort of scenario? If you are running 50 or 100 or 200 random scenarios on your tests, you know what the bad scenarios are. Every year on our cash-flow testing, I'm going to come up with a couple of bad ones. I know pretty well what they're going to look like, and it changes a little bit as the numbers change from year to year. Within my company, and with the mix of business that we have and our asset portfolio and investment strategies, we know pretty well what scenarios are of concern to us. Where is the real risk? The kind of situation that Jerry describes is not surprising.

The next logical step is, how do we prepare for a scenario like that? A week after the four of us had a conference call this summer to talk about this panel, I was called into my boss's office, our CFO, and he asked about the same things that Jerry discussed. Why don't we take a look at this? Why don't we look at this scenario where interest rates rise and the stock market drops, and what would happen, and how would we react to that? So my company, as we move into fall planning, is not only doing our usual financial planning with the budgets and the projected performance and all of that, but we're taking a hard look at this alternate scenario, this challenging economic scenario, and

starting to ask the question, how would we react? We don't have a silver bullet yet, but we're asking ourselves the question and thinking about strategies. How would we deal with that situation?

Risk management is about understanding the risk profile, seeing where the risks are and what can you do about it to change the risk profile. Thinking about a scenario where instability returns helps us to perform better as actuaries. That's the real challenge for all of us.

**MR. ROBERT CHIPKIN:** I'm corporate actuary at Phoenix Home Life. First I want to say I think we are, as an industry, much better off and much better prepared for adverse economic scenarios than we were 15 years ago. I lived through that period of time and saw the disintermediation. I think we've come a long way on contracts. I think we've come a long way on diversification of risk through our products, and the asset/liability management techniques are a lot better than they were at that time.

One thing that has been useful to me in cash-flow testing is to use some stress tests that ask what would my management do to protect themselves competitively and adversely in terms of margins? I will look at scenarios where the company tries to keep its crediting rate higher than it should in situations where interest rates go down or to try to raise its crediting rates higher than the assets will support in times of rising interest rate scenarios just to see what effect that has over some extended period of time. It's an enlightening exercise. I suggest that you try that to see how your company would fare in these extreme scenarios and how management might react.

**MR. LYLE:** I think that's a very good comment. I'd like to just add to it. Your comment was to think about how management might react. I think there's an opportunity here to look at a scenario like this and actually discuss it with management to find out how they think they would react. Not only does that give you, as the actuary, better information but I think it forces the company and management to think about the issue. So I think this sort of exercise can be very beneficial, not only as a tool to aid in your testing, but also as a tool to initiate management dialogue.

**MR. LOCKWOOD:** I think one of the risks that companies face is that as we continue going through periods of relative calm, we get lackadaisical and do not think ahead about what to do when situations change or when the environment changes. Another example of change, of course, is taxes. I think most companies probably think about that, but how well have you thought through the consequences of losing the inside build-up? What will you do? Is there a management strategy in place? It's that kind of thinking that I think is important to bring to the table. We should all be paying attention to these things when managing our companies for the long term.

**MR. PATZMAN:** I guess another question comes up when you do some of this. I'm not an expert on the *Dynamic Financial Condition Analysis Handbook*, that the Academy has put out. I think it provides a lot of insight into things that you should be going through and looking at. Is there a show of hands of people who have actually used that document? I don't see any hands. One or two back there. I've read parts of it and looked at parts of it. It seems like it's a super document to help you in this whole arena of doing this. If you don't have the document I suggest you get it from the American Academy of Actuaries. I think that's where it comes from. Right?

**MR. LOCKWOOD:** Yes.

**MR. PATZMAN:** Look at it. It's a good document. It's kept up to date on a regular basis by a committee, and it goes through these various scenarios and gives you a great deal of insight to help you in this whole management process of risk.

**MR. LYLE:** Does anyone else in the audience have anything they'd like to add to the discussion? If not, we'll move on.

The next topic will be a bit of a change of pace. It's one that I've labeled as a discussion of professionalism. I have observed what has happened in our recent history. Regulators, through their actions, and to a certain degree the public (and really the regulators represent the public) are calling upon actuaries to accept an increasing degree of professional responsibility for their work. That

often takes the physical dimension of signing off on the work that we do. Those of us who are valuation actuaries have become very familiar with this. I think everyone that I know of who is an appointed actuary, who signs that actuarial opinion and memorandum, takes that responsibility very seriously. That's work that we, because of that requirement, carry out with much greater diligence than probably any of us did before this came into place.

The illustration actuary is a more recent example that has had a similar kind of impact on some of us and on many of our brethren who are not at this meeting. I find in the work that we do, that product filings seem to more often require some kind of statement from the actuaries. I am not a product actuary, but every so often I'm called upon as our company's valuation actuary to sign some kind of a statement in connection with product filings. These kinds of things are happening.

What's next? Where else are these kinds of requirements going to be put on us as a profession? Dynamic solvency is something that has had a lot of discussion that might lead in that direction. There's work going on today over a new valuation law that might be a whole lot different than we have today. It might be one that takes away a lot of the reliance on minimum standards and puts more reliance on the actuary. That could lead to more demands on us as a profession. The question I would raise is, as a profession, how do we respond to this kind of a trend? How do we anticipate and prepare for additional signing responsibilities that may come our way? Not that the signing is the professional act but it's sort of the embodiment of somebody asking us to step up to the plate and take professional responsibility for the work that we do.

I think the answer comes back to, not what requirement will come at us, but how do we do our work? And I think there are things that we ought to do as a professional and maybe we need to be more conscious about that so when additional requirements of this type come along we're prepared to respond to them. One of those is keeping up with the state-of-the-art of our profession, our craft, and the work that we do. Continuing education and being at sessions like this are important. Those of us who are valuation actuaries are here, at least in part, so we get our continuing education credit and we meet the requirement to sign that statement. Hopefully that's not the only reason that we're

## 1997 VALUATION ACTUARY SYMPOSIUM

here. I hope we're here for the spirit of keeping current with what's going on. We need to use the latest tools and techniques, the methods that are out there, and the methods that help us to do our work better. It means using dynamic methods and not just deterministic approaches.

Being professional also means doing things the right way. We need to be aware of the ASB standards. As new ones come out, we need to be aware of those. Where they affect the work that we're doing, we need to be following those standards, and doing the work properly. We need to have an attitude of doing completed work. It must be the kind of work that can be adequately substantiated by documentation.

Finally, as professionals, we need to accept ownership and responsibility for the work that we do. We use the format of an actuarial report to communicate. We must communicate to our managements and our boards by using a good report format not only where we're required to but in all of the work that we do. It is, I think, a very good discipline for us. Then, there's the issue of documentation. The pressure to move onto the next thing and not complete the documentation is always there. Donna Claire talked about that in the opening session (Session 1).

As leaders, as actuarial managers, as chief actuaries, and as corporate actuaries, we can play a significant role in being proactive with the people that we work with and those who work for us, about the need for continuing education, and the need for documentation and adherence to standards. We can really be encouraging and enforcing in all that we do. We need to set a good example ourselves, and we need to encourage others to do that.

We need to do all of our work as though we had to sign off on it. Those of us who are valuation actuaries, who are forced to sign off, do a lot of these things because someone else says we have to. I think we ought to do all of our work as if the same kind of requirement were there. Then, when the question comes, on some unknown topic in the future that we have to sign off on, we can do that professionally and in good conscience because we've been doing the work in the correct way. That's

something that I feel very strongly about. I think that we've learned from the valuation actuary exercise things that we can apply to other elements of our work.

**MR. LOCKWOOD:** I think it's very important also. If you're a chief or corporate actuary, or even if you're in a different position, you can take a leadership role and set an example in the kinds of documentation and the reporting that you do and you can require professional work.

I'll tell a war story. There was a lot of initial resistance in our company from the different areas. We're organized in our company in a business unit sense so that all of the actuaries don't report to me, they report to other people, and there's dotted lines all over the place. My staff and I are involved in peer review, in pricing and product development, and other areas. There was a lot of resistance initially to doing an actuarial report or formal documentation.

What has happened is, over time (about five years) we have gotten over that hurdle. The actuaries in our different areas are actively doing the actuarial reports, including good, rigorous documentation. They are finding that the real value in doing that is for themselves. The value comes later when they have to go back and do some pricing for nonguaranteed elements in the work that they're doing in updating dividend scales, and in the work that they're doing in reviewing experience studies. It's so much easier to know what was done before. After you get out three or four years, you tend to forget, but the documentation's all right there. They found great improvements in efficiency that way, and now they thank us for that kind of a requirement, even though it was a burden initially. That's kind of a cultural thing that we faced, but I think it really has value. I think it's all part of professionalism and part of being more efficient ourselves.

**MR. PATZMAN:** Bob, I think you brought up where we're moving in the future. A big part of the nonforfeiture changes that are currently being worked on at the NAIC are called "The Plan." It's what you decide now, and you communicate to the buyer how this policy is going to work. Internally, you're going to have to be developing a plan that says here's what we're going to invest in, and here's the type of investment philosophy and the various things that go into pricing the

## 1997 VALUATION ACTUARY SYMPOSIUM

product. It's going to have to be written down and kept filed away in your company so that you can look at it as long as that policy is in force. The plan is something that's coming and it's going to put more and more responsibility back on us as professionals.

**MR. MCLAUGHLIN:** As the token consultant on the panel, I would say that we perform our work not only as if we're going to sign off on it or report on it, but we also document and go through procedures that would stand up to the scrutiny of the courts if, heaven forbid, a legal problem arose. We have been fortunate in our firm. I think actuaries, in general, have been less exposed to litigation than, for example, accountants or other professionals, partly because of the nature of what we do. It's somewhat poorly understood by the general public. We are forecasting events, cash flows and other things, that will take place in the future, and the standard or expectation is perhaps somewhat lower. It is known that we can't predict the future. We certainly can make a reasonable estimate. We impress upon our actuaries in our type of working situation that the documentation that we maintain, the approach to our work, the assumptions that are chosen, the wording of the final report to the client and the amounts that are billed all would stand up to the scrutiny of litigation. That, to me, is a very high standard to maintain, but I think it's doable and achievable. It means doing some of the things that were commented on by Donna Claire, such as keeping good notes. You should get rid of aborted work efforts or dead-ends and retain an organized, reviewable flow of work and documentation that support a final report. That applies to paper documentation. In our technological age, it applies to electronic forms of communication.

You may have seen in the newspaper recently that one of the big consulting firms, Andersen Consulting, was involved in some litigation. In the process of discovery, the attorneys for the other side got tapes or disks of all the e-mails that had gone back and forth from every member of the engagement team. One of the partners on the job had sent an e-mail to someone else about some consultant: "Joe Blow shouldn't be on this job. He doesn't know what's going on. He is not familiar with the issues. In fact, I wouldn't even trust him to pick up my dry cleaning." It went something like that. That gets into the public record now, and a bit of back pedaling occurs about



what took place. I don't think that means that we should work in fear. If knowledgeable people look over our shoulder, they should say that we did our work in a sound and reasonable manner.

**MR. LYLE:** Since we began the session, the folks on Wall Street have thought of at least three new kinds of assets that we could invest in. Jerry's going to talk a little bit about the problems that go with the continuing creation of new kinds of assets that we have to deal with.

**MR. LOCKWOOD:** The availability of new assets that can be used to back insurance liabilities appear to have no limits. Wall Street and the investment banking houses continually churn out new asset types by packaging cash-flow streams in new and different ways. We're continuing to do that on the liability side also. Indexed products is just another flavor of that. Each of them has different but important credit risks, interest rate risk issues, and liquidity issues. As these new asset types are incorporated into a company's investment portfolio, these financial instruments must be analyzed and understood by the company and by the company's actuaries, particularly those involved in asset/liability risk management and risk management in general. In some cases, they must be analyzed by senior managements when there's some risk being taken that's not well-understood or doesn't fit in with the liability profile. The impact of these new financial instruments on a company's asset and liability risk profile needs to be well-understood.

The analysis of these new assets will require that the asset be modeled, which is sometimes a challenge, given the systems we have available. We're sometimes expending a lot of extra work and effort to do that. They need to be incorporated into financial projection systems, particularly for the cash-flow testing and reserve adequacy analysis, and also for other business planning and dynamic solvency testing purposes. A recent example of an asset type that's come out and has been fairly popular in insurance companies in the last six to nine months has been commercial mortgage-backed securities. Commercial mortgages are being packaged and sold off in different tranches.

The question is, what are the implications of these developments for the insurance company actuary? I'd like to get a little discussion going about that issue. I think one of the implications is a need to

develop good working relationships and communications within your company among all the different professionals that are involved. That involves developing good working relationships between your actuaries and your investment professionals, if they don't, in fact, become one in the same in some organizational structure. That involves becoming quite knowledgeable in these new assets and having people who are specialized in really understanding the different types of assets that come along. You must open up that dialogue with the investment professionals so that, conversely, information about the liabilities (the liability characteristics, and the liability cash-flow requirements) gets communicated to the investment professional so that they take that into account on the other side.

I've seen in my company that new asset opportunities will come along, and there's a tendency for the young traders to really want to beef up on a particular type of asset. From an asset manager's point of view, this might be an asset that is going to provide good total return from the point of view of the asset alone, but without regard to how well it contributes to the overall company's total return, when you take into account the impact on the overall company's liquidity and matching positions. I think this is very important to understand within a company. A real management challenge is getting the investment professionals and the liability professionals to understand and communicate with each other and work together. I think those are some of the key issues around this. I'm interested in other comments about how important you think this issue is and how actively you think this is being managed within your company. How are we coming along in the ability to manage, on an integrated basis, the asset and liability risk profiles we have? Other comments?

**MR. LYLE:** I think this is a terribly important issue for us. It is important even if your only concern is the realm of cash-flow testing and asset/liability management that relies so heavily on the ability to model the assets and understand the characteristics. I think it's terribly vital that we understand these new assets coming along. If our investment people are buying them, we certainly need to understand them. In the early days of cash-flow testing, our deferred annuity block had a sizeable amount of CMOs in the assets backing them. It wasn't an overwhelming percentage, but it was significant. Early on we just ignored that in the testing because we really didn't have the

capability to model them well. We thought they'll probably behave like the other assets in the portfolio, and this won't affect the results too much. When we finally matured to the point where we could do a good job of modeling the CMOs, we found the results behaved much differently. Being able to model those assets well made a real difference in the quality of the results that we obtained. The lesson I learned from this was that we have to stay current with the new types of assets that are coming along and be able to model them well. We need to understand what their characteristics are, and how they're different from other assets that we have. We need to know how they're going to behave in the different economic scenarios so that we can test them well.

In my company I sit on our investment committee, which is one way that I keep a dialogue between my area and the investment folks. At a recent meeting, we had a presentation by one of the investment people on asset-backed securities. That, to me, is almost an oxymoron. It's sort of like an asset-backed asset. I'm amazed by some of the things now that they are collateralizing and repackaging as synthetic assets. There's a great deal of new stuff happening out there that we need to keep current with.

**MR. MCLAUGHLIN:** I think the question I have is, are we going too far in terms of the creativity and the ingenuity that is exercised in the development of new assets? The Wall Street firms hire bright young folks out of college -- they're MBAs or economists or mathematics students. They put them to work in shops that are designed to create new assets with new designs and new characteristics. I guess there's nothing wrong with having a wide variety of assets with many different characteristics. If you have complex liabilities, then you want to have a variety of assets that you can choose from to minimize risk and maximize return.

It sometimes seems to me that our ability to invent new assets exceeds our ability to absorb and understand them. There have been celebrated cases of this. The Orange County bankruptcy is one example in which a large firm sold a derivative instrument to the county. They invested very large amounts, in the billions of dollars, and when the environment changed, interest rates changed. The value of the derivatives declined substantially. The asset manager pleaded ignorance and said, "I

## 1997 VALUATION ACTUARY SYMPOSIUM

didn't understand this stuff. I bought it because these guys sold it to me, and I had no idea what I was doing." That's kind of a unique defense. In many cases, though, I wonder if there isn't some truth to that.

**MR. PATZMAN:** I think that's right. I think our company has taken the stance that if we can't model it, we don't buy it. I've heard stated many times in some of these meetings, that if you can't do it, you don't really know what the risk is, and you shouldn't get into it. I think you've got to be very careful in that respect.

We have formal committees, like ALM committees. We also have a number of standing committees where we have investment people sit down very informally and talk. We talk about all the various testing we are doing and potential investments. Sometimes when you get too formal, you miss a lot of things. We've tried to communicate at both a formal level and an informal level to keep the communication going back and forth to build the rapport between us so that we are both comfortable with each other when things do happen.

**MR. LYLE:** Does anyone in the audience have anything they'd like to add to this discussion? I think, clearly, this is a very important topic. Steve, you said, "If we can't model it, we can't buy it." I think that may almost be kind of a revolutionary statement, yet I think there's a real thought-provoking idea in that. The issue is not the modeling but understanding the risk.

**MR. PATZMAN:** Right.

**MR. LYLE:** We must really understand risk and managing risk. Let's not move into something that's new until we understand it and understand how it affects our environment and the business we're in. That becomes so critical for us as actuaries; we must continue to be able to add that perspective of understanding and managing risk in all that we do and in all that our companies are doing.

**MR. LOCKWOOD:** This idea of if we can't model it, then don't buy it, works up to a point. I know that there are assets being bought by companies where the investment people understand the asset and case matched it, but only within the context of the asset. But how well does the company understand how that asset is going to perform in support of its liabilities? Sometimes you get different answers. The investment people might understand the asset but it might be the wrong asset for the company's liability profile. That's an important thing for all companies to be aware of and to be keeping an eye out for.

**MR. CHIPKIN:** I'd like to, if I could, go back to one of the discussion topics on professionalism. I have a concern that the professionalism concept is going down two tracks. One is, as you discussed, a better work effort on our part and documenting and understanding our work and our relationships with our management. The other one, unfortunately, is what I would call a compliance concept. Many of the states and many of our current standards of practice are focused on how to comply with state laws and state regulations. My concern is that some of those standards and tasks may in fact conflict with the concept of professionalism, that is, giving your best advice and your best work effort to your management. I'm just wondering if anybody shared that concern.

**MR. MCLAUGHLIN:** I'll respond. I do think that, to some extent, we have an environment where we regulate without perhaps fully evaluating the cost of compliance. I do think that actuaries and other areas within the insurance company structure do spend a lot of time in compliance. I think it is somewhat of a distraction to doing some of the other things that are required by our sense of professionalism. Jerry made a comment earlier on. What if tax law changes? What if the inside build-up changes? What would that do to us? As actuaries, we need to think about that. We need to stop running our model 200 times instead of 100 times. I'm sure that has some value but perhaps not as much value as thinking of other variables that our models don't reflect, like a change to the tax law.

On the other hand, there are a couple of risks that we could identify that we should measure and quantify, but we're so busy with the compliance aspect of our work. I do think it's a difficult

question. The only sort of advice I can give is to go back to some of Bob's comments at the beginning. We need to know what's important and urgent and what's unimportant and not urgent. We must do our best job as experienced actuaries to balance those trade-offs and delegate, when possible, some of the compliance functions. They do eventually become more routine and somewhat easier to comply with over time. Make sure that you leave part of your day to do those not urgent but important tasks.

**MR. LOCKWOOD:** Bob, you're bringing up a good point about the compliance versus the professionalism. I guess my thinking is that the compliance has kind of been with us all along anyway. The important thing is to understand the difference between doing compliance work and providing professional actuarial services and advice and analysis. I thank you for bringing that up. Give us all something to keep in mind. We must think about that difference because it's an important difference.

**MR. PATZMAN:** We have to look at what's happening right now to us, and where we want to go in the future. We have some ability to impact what's going on with changes in the valuation law or the nonforfeiture law. Because we are corporate actuaries, we have an additional responsibility to professionalism. We must make sure that we are involved in the system that we're building and that the states are building. There are many levels at which you can get involved. The easiest one is to make sure you're up to date. Read all the bulletins that have come out about the changes that the NAIC is looking into and provide comments. You may not think your comment, even if it's a one-liner, is important, but it is. They do read them. It does get circulated around so that all the regulators know what your comment is. If there are enough negative comments about something, then they can see that everybody's against it. If we don't have the actuarial profession behind it, we can't get these things through. This becomes very apparent when you start going to the NAIC meetings. The next level down is to buy the minutes from the NAIC Actuarial Task Force. It costs a couple hundred dollars a year and comes out every month. It gives you all the latest versions of the regulations. It also gives you these letters of correspondence back and forth between the

regulators and other people that are coming out so you can see what the issues are. If you don't like an issue that's coming up, you can respond to it and help make an impact on what's going on.

The next level is to get on various committees. The committees of the American Academy of Actuaries have just been reorganized a bit, and the committee that used to be called the Committee on Life Insurance is now the Committee on Life Insurance, State Insurance Issues. That committee is going to be working directly with all these various issues that are going on within the states. If you become an interested party and find out what's going on at this level, you can have some impact. You can either be on one of the committees or just provide comments. Also, go to the NAIC meetings, especially if they are held in your area. Go there to hear what's going on and provide your input as an individual professional actuary. If we don't provide input, the regulators are going to provide it for us, whether we like it or not, and then we're going to have to live with it.

