

**RECORD OF SOCIETY OF ACTUARIES
1993 VOL. 19 NO. 1B**

ASB STANDARD ON SELECTION OF ECONOMIC ASSUMPTIONS

Moderator: KAREN STEFFEN
Panelists: RICHARD DASKAIS
FREDERICK W. KILBOURNE
Recorder: PAUL W. WITHINGTON

A discussion of the proposed standards for determining the economic assumptions for the purposes of measuring pension obligations. The actuary's determination of the interest rate assumption will be the primary focus of the discussion.

MS. KAREN STEFFEN: We're going to discuss the proposed Actuarial Standards Board (ASB) standard on Selection of Economic Assumptions for Measuring Pension Obligations. We also are going to talk about economic assumptions, primarily the interest rate.

I'm a consulting actuary with Milliman & Robertson in Seattle, and I've spent most of my career in public plan work. Dick Daskais is a pension actuary; he has had his own firm and has worked with other firms. Dick currently has his own firm in Los Angeles and spends his time almost solely in pension work, doing testimony and other types of pension projects.

Fred Kilbourne owns his own company, the Kilbourne Company, in San Diego. Fred is primarily a casualty actuary. He does do a little bit of just about everything else, he tells me, except pensions. Fred is on our panel because he is a member of the ASB. He will give us some insight into the board and how it operates.

Our recorder is Paul Withington. Paul also is with Milliman & Robertson in Seattle; he is a brand-new Associate of the Society of Actuaries. I would like to start with a general introduction to the standard itself. I'd like to see a show of hands of how many of you have already read the standard? Maybe just over half. So we all start on an equal footing, I'll spend some time just going through the proposed standard.

The committee has received 53 written comments under the December 31 deadline and two or three since then. They're meeting very soon to consider the comments received. I talked to Mary Adams, the chairman of the committee for this proposed standard, and she said that the 53 written comments all discussed different things. I think the committee has its work cut out for it.

The purpose of the standard is to provide additional guidance and to amplify standard Number 4 by modifying its position regarding implicit assumptions. It also is meant to enhance the user's understanding of the actuary's work regarding pension obligations and defined-benefit plans. The scope covers the economic assumptions used to measure pension obligations in defined-benefit plans. If there is a conflict with any law or regulation, the standard requires the actuary to follow the law or regulation, but to disclose the difference, if any, between what the law requires and what the standard requires. The standard is effective December 31, 1993, if adopted by the ASB by July 30, 1993.

First, what are economic assumptions? The economic assumptions considered in the standard are inflation (either as a separate assumption or as part of assumptions such as the investment return or salary compensation, and, perhaps, cost of living), the investment return assumption, the compensation scale, and other assumptions that may apply, such as Social Security benefits or cost-of-living increases. The standard says that in considering assumptions we should look at the purpose of the measurement. Although it doesn't say so in the standard, in other comments it is clearly stated that the standard is primarily addressing the valuation of pension obligations considering the characteristics of the obligation and the types of benefits being provided. Look at the historical and current data in setting your assumptions, what the economic and market expectations currently are and are expected to be, and the historical expectations or data; then, look at it all to test for reasonableness.

The general process outlined in the standard for setting an investment return assumption states that you should first identify the various components and the data, then develop either a specific rate or a range of return, depending upon the method you use. Then take that rate or range and modify it by whatever plan issues are applicable; that is, the specific plan situation. If there's a reason to modify the rate, select an assumption. Once you select an assumption, you then go back and review or test it for reasonableness and consistency. Three components of investment return are listed in the standard: the risk-free rate of return, the premium for investment risk, and inflation. Each of these components is assumed to vary by the class of asset. The standard also gets into a discussion of a tax premium. We'll probably get into that later in the discussions. That's something that probably isn't familiar to most of us.

Table 1 shows the building-block method. It says that you look at a fund's distribution or investment policy. In this example, the fund has agreed to invest 55% in common stock, 35% in long-term government bonds, and 10% in Treasury bills. The expected net returns for each class of assets are taken from historical data, actuarial judgment, whatever the actuary uses to set the assumed rate for that class, and a weighted net rate that is determined based on the percentage of the plan's funds, in this case 5.7%. The 9%, 2% and 0.5% expected returns are net of inflation in the example in the standard. Therefore, you have to add your inflation assumption to the 5.7%. In the example, the inflation assumption is 4%. The example adds these together. I think most of us, or some of us anyway, would use a product or a multiplicative answer, and we'd get close to 10%. So, in their illustration, we see how to determine investment return using a building-block approach.

In putting these examples together, I looked at the Society of Actuaries' Study Note No. 4612391, called "Selection of Interest Assumptions for Pension Plan Valuations," by Steve Idelson. This is the material the Society is providing to students to teach them how to set the interest assumptions. There are some numerical examples regarding class of assets and types of returns in this study note. The data are based on the Ibbotson Associates study for 1926-89, and the total actual return. If you then take the 3.1% inflation out of the actual return, you get a net expected return (see Table 2). Using those assumptions, which are long-term historical rates, and redoing Illustration A on that basis, you'd get an expected return rate of about 7.8%. I did this because one of the comments to the board was that some of the illustrations in the standard have some problems. Again, I'm just trying to show you what

ASB STANDARD ON SELECTION OF ECONOMIC ASSUMPTIONS

the building-block method would have you do. You would determine what your expected net rate is, weight the return by asset class, and then add inflation.

TABLE 1
Building-Block Method

Balanced Fund Currently at:	% Mix	Expected Net	Weighted Net
Common Stocks	55.00%	9.00%	4.95%
Long-Term Government Bonds	35.00	2.00	0.70
U.S. Treasury Bills	10.00	0.50	0.05
Total	100.00%		5.70%
Inflation			4.00%
Additive			9.70
Multiplicative			9.93

TABLE 2
Building-Block Method

Balanced Fund Currently at:	% Mix	Expected Net	Weighted Net
Common Stocks	55.00%	7.20%	3.96%
Long-Term Government Bonds	35.00	1.50	0.53
U.S. Treasury Bills	10.00	0.50	0.05
Total	100.00%		4.54%
Inflation			3.10%
Additive			7.64
Multiplicative			7.78

Another determination in investment return is the probabilistic asset method shown in Table 3. This is discussed in the standard. It's somewhat similar to the building-block method in that there are asset classes. There's an average for each of the four most recent decades. I recognize this is probably not a valid method, but just for illustration purposes I took the very highest decade return for common stock, bonds, and treasuries to get a high actual net return assumption and then, likewise, looked at the lowest average for each of those four decades. The probabilistic asset method would indicate some type of method to determine a high and a low value for each class of assets. You would then do a similar weighing by fund. Remember, our fund had 55% in common stocks, 35% in government bonds, and 10% in treasury bills. In this example, the range goes from 12.46% to -1.75%. Adding inflation, which over these four decades ranges 7.4-2.2%, you'll see that on a multiplicative approach you can get a range of investment return assumption anywhere from 21% to 0%.

RECORD, VOLUME 19

MR. WILLIAM DAVID SMITH: You have inflation represented by the Consumer Price Index, as in the example, at 2.2% for the low period. The question is whether the low of 2.2% was for the same 10-year period that produced the -1.75%.

TABLE 3
Probabilistic Asset Method

	Actual Net		Weighted Net	
	High	Low	High	Low
Common Stocks	17.20%	-1.50%	9.46%	-0.83%
Long-Term Government Bonds	7.50	-2.30	2.63	-0.81
U.S. Treasury Bills	3.70	-1.10	0.37	-0.11
Total			12.46%	-1.75%
Inflation (CPI)			7.40%	2.20%
Additive			19.86	0.45
Multiplicative			20.78	0.42

MS. STEFFEN: No. I just looked at these highs and lows and said, if you really wanted to push the range and be sort of arbitrary about this (and, again, it's not a valid assumption because they come from different economic periods), you would most likely take one decade and say this is what we're assuming. But I was just trying to show some variability in the range, so these are artificially incorrect. Table 4 shows the mid-high and the mid-low actual net and weighted net. These are probably much more realistic, and I think this is the type of thing you'd probably be looking at. So the range in Table 4 goes from 12% to 5%. Again, I just put some numbers together, more to illustrate what the standard was trying to point out, the difference between a building-block approach where you actually determine one rate and the probabilistic asset method where you determine a range. And I was just trying to show you how the range can vary, depending upon what you assume for your high and your low for each asset block. Part of the reason I did this is because of the Vincent-Elkins court case in which there were ranges very similar to 5-12%.

TABLE 4
Probabilistic Asset Method

	Actual Net		Weighted Net	
	Mid-High	Mid-Low	Mid-High	Mid-Low
Common Stocks	12.40%	5.30%	6.82%	2.92%
Long-Term Government Bonds	-1.10	-1.90	-0.39	-0.67
U.S. Treasury Bills	1.40	-0.30	0.14	-0.03
Total			6.57%	2.22%
Inflation (C.P.I.)			5.10%	2.50%
Additive			11.67	4.72
Multiplicative			12.01	4.78

MR. SMITH: Based on decades? Each of these reflects one of the four decades?

ASB STANDARD ON SELECTION OF ECONOMIC ASSUMPTIONS

MS. STEFFEN: Right. In other words, the mid-low, the 5.3%, was the second-lowest average of the four decades for common stock, but it is not just one decade. I mean, in practice, you would probably use one decade like the 1970s or the 1980s, because, obviously, the stock and bond inflation is going to be interrelated. I was just putting numbers together so you can get a feel. Each one of us is going to have a different way of assuming what the rates will be for any economic scenario. I was just looking for numbers that vary.

MR. FREDERICK W. KILBOURNE: I think this is very interesting because we do have a sense of what the decades are about; we've known about individual years, and this gives us some insights. I think most of us could probably tell which were the high and low years for each of these categories.

MS. STEFFEN: We have all four averages in the two examples. In other words, this is the highest and the lowest for common stock and this is the middle and next-lowest. So these are the four averages for the four decades I was looking at. So I think you can decide where you think a high and a low is going to be in those decade averages. I put these together mainly to show the difference in the range. In the first example, taking extremes, which as Bill pointed out may not be reasonable because they come from different decades, you can go from a 0% to 20% interest assumption, which I think all of us would agree is a rather extended range that does not include realistic assumptions. I don't think many of us are using that kind of a range. The second one here is something that I think comes a little bit closer to the real world.

The reason I put this together was to show you that a range is quite sizable. And this came out, again, in the court testimony with the Internal Revenue Service; there's a great deal of judgment that goes into setting these rates.

The standard also talks about a couple of other methods for setting an investment rate return. One is called the Government Securities Method, where they relate assets as if they're invested solely in government securities. They also get into multiple investment return assumptions and blended rates. I don't want to spend a lot of time getting into details so we can talk about the standard itself. The standard then goes on to talk about various plan issues. There's a list of maybe 12 or 15 issues that are described in the standard. Again, going back to the basic methodology in setting the assumption, once you pick your range or your rate you're supposed to adjust that by the plan issues or particular specifics related to the plan. The standard spends some time discussing the compensation scale. And, again, the three components are inflation, productivity, and the merit component. There is a brief mention of other economic assumptions, again relating to Social Security benefits and a cost-of-living increase.

Section 5.8 of the standard points out that each assumption is to be individually reasonable. This is contrary to the ERISA standard that requires actuarial assumptions to be reasonable in the aggregate. There's a section on communication in disclosures. Another section in the standard that I'd like to point out is Section 6.3, which is a standard Actuarial Standards Board section, but one that provokes quite a bit of comment, judging from the comment session I attended in Phoenix. It requires an actuary using a method to determine a rate that is different from the method the

standard would suggest to state that it is different and to give some indication as to the magnitude of the difference. So we can get into some discussion on that.

To summarize Section 5.1 for you, the standard itself says, "selection of economic assumptions is a basic component of the process used to estimate the amount, timing, and value of obligations under a defined-benefit pension plan. The actuary is responsible for the selection of the economic assumptions that fall within the scope of this standard, unless the selection of one or more assumptions by another person is disclosed in the applicable actuarial communication. Generally, there is not a unique set of economic assumptions for a specific plan. The actuary should use professional judgment in making best estimates of economic assumptions. Making best estimates is a process that produces expectations which may be described either as point estimates or estimate ranges."

We've put together a substantial list of questions. Each one of us will start with a group of questions, and the three of us will have a general discussion of the questions. We've allotted about ten minutes to each of the first five questions, and we thought it would be helpful to take questions from the floor as we go through each topic, for consistency. We'll let Fred start us off with, Why have a standard?

MR. KILBOURNE: Why have written standards at all, this one or any other?

Number one, "You need our standards to keep yourself up to date in the ever-changing actuarial world." Two, "If we don't regulate you, someone even worse will gladly take on the challenge." Number three, "How can we discipline you without a book of laws and regulations for you to violate." Number four, "The carrot that's offered along with the discipline stick is safe harbor from lawyers and other predators." And, finally, "Only our central body can stave off an unruly patchwork of fragmented special purpose codes." I can take a pessimistic view of these reasons and say, for example, "Hasn't the U.S. Constitution, which dealt largely with principles, proven to be more timeless and effective than laws and the regulations of the land?" I can reference to a punishment quota system along with a safe-harbor concept that there's no guarantee. This is certainly true that standards won't prove to be more useful to the attacker than to the attackee. "Will you and the actuaries you know really study and apply all the written standards you receive no matter how many or how detailed? Will our clients and employers really be better served by all this study and application and be willing to pay for it as well? And, finally, won't our own standardizers become a self-perpetuating bureaucracy finding the need for their services in every corner, including your own?" Well, of course not. I can conclude the whole thing by saying that "standards are for your own good, and you'll be much happier if you'll just fall in line, join the crowd, and stop asking so many questions."

Now, I'll adopt a different mode and talk about standards as though they are important and needed. I think a strong case can be made that they are, but I think it's important to keep in mind the kinds of things I was just talking about. I think the whole process and the concepts behind it should be seriously reviewed every few years, and it is. There is a study going on right now to decide if the whole process is being done correctly.

ASB STANDARD ON SELECTION OF ECONOMIC ASSUMPTIONS

I'll try to hit some of the highlights. Why have standards? This is from the fact book put out by the ASB: "standards of practice serve to ensure the public that actuaries are professionally accountable, at the same time they provide practicing actuaries with a basis of assuring that their work will conform to generally accepted actuarial principles and practices."

I'd say that one of the important functions that is increasingly being provided by the standards is education or continuing education. My favorite example of this is the long-term care standard, which is quite lengthy and goes into a lot of detail. It is the guts of what an actuary would think about: a checklist, things to think about if you're going to be getting into long-term care, which for most practitioners has been quite a recent phenomenon. It is a standard in the typical sense. It tells, directs, and tries not to be a cookbook; nonetheless, it directs attention to ways of doing things that are better, ways that are outside the realm of what's considered to be acceptable within the profession. I know myself, in putting this together (Bart Munson was head of the task force for the long-term care standard), I came to learn a great deal about what the actuary would do if challenged with a long-term care assignment; and such experiences, of course, have value to us in the areas that we actually work in.

Why should this particular standard be written? It's an exposure draft; it's a proposed standard. It will become a standard when it's gone through all the hoops (all the challenges that any standard meets), and this one, I'd say, is probably setting new records in that regard. It has been "proposed" for three years and counting, and I sure wouldn't bet on its acceptance on December 31, 1993. But the first question that would come to mind in connection with this standard is related to standard of Practice Number 4, which is what I call an omnibus pension standard. I'm reminded of my own words, "won't our own standardizers become a self-perpetuating bureaucracy, finding the need for our services in every corner." I don't really know the answer to that, but the Pension Committee and the Board, apparently, do not think so. *The purpose of the standard is stated right at the beginning in the exposure draft: to provide additional guidance to actuaries who select economical assumptions for measuring obligations under defined-benefit pension plans; to amplify and modify certain sections of the existing standard, standard Number 4; and finally, to enhance a user's understanding of the actuarial communication which documents the process and the results of a measurement of the obligations of the plan.*

Pension Section News of the Pension Section had a fairly lengthy, and I think very good, article by Ed Burrows, entitled "ASB Member Explains Proposed Standard" (March 1993 issue). I found it useful in preparing for this session; I don't know that much about what's going on in pensions. As a matter of fact, I did work fairly substantially as a pension actuary, but that was pre-ERISA. The first section in Ed's article is why it's needed. It states, "Most observers agree that past practice in selecting pension assumptions involve too little reliance on analytical methods, a tendency to rely too much on consistency with prevailing practices." I suspect that's true, it's certainly true in other areas of actuarial practice. You work in a field for awhile, and you kind of know what the right answer is; whereas there are analytical procedures and technical computer capabilities that a standard can encourage us to take advantage of so that you can make explicit assumptions rather than just assume that implicit ones are okay.

How does the standard restrict this choice of assumptions? There should be a continuing effort, I think, to resist any kind of a herd mentality. In fact, even when I see the very last checklist of what should be done, a check for reasonableness, why is that important? I think that your assumptions should be internally consistent, but why should they be reasonable? The future may turn out to be completely unreasonable. Or, as I was saying to Karen, I think this approach of looking at what was the average inflation rate during different decades is quite useful because we know what happened in different decades in a broader sense. And are the 1990s going to be more like the 1980s or the 1970s? Well, we may have an idea that maybe they're not going to be like either decade. Certainly, an analytical approach would involve taking a look at all of the last four decades if we're trying to project inflation and come up with some indication of the future by looking at the past in a strictly statistical or mathematical sense. Perhaps we can do more than that; perhaps we can sense and understand the forces that are at work in society, and perhaps we can take a closer look at just what the 1970s produced as opposed to the 1980s or the 1950s.

How broad or general should this or any standard be? I wasn't appointed to speak for the board, but I think I could say that that's a balance that is always in mind. The different supporting committees of the ASB, such as Mary Adams' Pension Committee, tend to have this in mind, and the best way to prevent it from becoming too much like a cookbook is to input from the total profession, or the involved profession, as was obtained in the 53 responses to the exposure draft. And that serves as a very good check if you get overly specific, because somebody is going to point out that you're much too specific and somebody else is going to point out that you're just wrong in what you're saying should be done.

Why does the standard require the use of explicit assumptions? I'm a firm believer that we ought to have explicit assumptions. Implicit assumptions remind me of the insurance department draft report that I heard about some years ago which started off, "There were many errors, most of which were offsetting." I'm not sure that's good enough for the actuarial profession.

MS. STEFFEN: Dick, do you want to respond?

MR. RICHARD DASKAIS: I'd like to raise a couple of questions. I am not a fan of standards in general. I think this one is absolutely terrible, but we'll get into that later. One of the things that concerns me about this standard is it seems to take a cookbook approach. And I know you used that term and rejected it, but it seems to use a cookbook approach more than most standards. In other words, why couldn't the standard have been written to say: "Consider the following things," followed by an enumeration of all the considerations listed in the standard, such as: historical returns, current yields, plan characteristics, asset allocation, and so forth? And having considered these things, the actuary should make his best estimate under ERISA or use a settlement rate under *Financial Accounting Standard 87*. But why worry about whether today's 7.97% rate or 6.97% rate, on long Treasury bonds really represents 3.10% inflation and 4.00% whatever and whether it should be additive or multiplicative. My recollection from reading the other standards is that they are nowhere near as "cookbooky" as this one.

ASB STANDARD ON SELECTION OF ECONOMIC ASSUMPTIONS

MR. KILBOURNE: I suspect that you're right. Just from having been involved to some extent in the process and also just looking at it, it seems to be more so. And, of course, that is part of the balance, being broad versus being specific. My guess would be that the final version is going to be a lot less so, but I'm not trying to second-guess the committee. I have in my hand a cut-and-pasted version of the 53 comments that were received. And although each of them may have dealt with a different area, they all, or most of them, have more than one thing, and so there was a lot of overlap. Alan Kennedy (who works full-time with the Actuarial Standards Board and is terrific at understanding actuarial words even though he's not an actuary); took these comment letters, cut them out, categorized them, and then he put them together as an aid in categorizing sections. I believe the committee meets soon and the ASB meets immediately after that. It's not on the agenda, but I hope we'll have some input from the committee anyway. I don't know how many of the comments was too much of a cookbook or is the wrong recipe, but I think a number of them do, and I would expect that it's going to be changed. I'm not sure whether it will be enough to satisfy you or the others and be the correct balance.

MS. STEFFEN: There were two public hearings last October. Dick and I attended the one in Phoenix in conjunction with the process meeting, and there was also a hearing the following month in conjunction with the American Society of Pension Actuaries (ASPA) meeting in Washington, D.C. At the hearing in October in Phoenix, the general consensus was that the exposure draft was general enough in nature, and that it was not too specific. But, there were certainly a lot of comments about what was in the standard.

The standard does require the use of explicit assumptions and there were quite a few comments on that. This is probably one of the more significant changes from both the ERISA requirements and the prior standard Number 4, which allowed implicit assumptions. Using more conservative interest assumptions to offset other assumptions that are being used is a customary practice in the pension area. Does somebody want to comment on explicit assumptions?

The exposure draft under Section 4 states that "improved technology now makes it feasible for the practicing actuary to select and use explicit assumptions." I have seen a few written comments and I think one of them pointed out that this is not a reason for having explicit assumptions. Granted, we can do a lot more things now with PCs than we could in the past, but the issue of whether we should have implicit or explicit assumptions shouldn't necessarily relate to PCs.

MR. DASKAIS: One of my comments was that I don't think that statement in the proposed standard was true. I mean, it was just as easy with the rotary calculator or an abacus to use 11% interest as it was to use 3%.

MS. STEFFEN: If you don't want to change your assumptions every year to reflect your new ranges, then I think that's where the tendency comes in to use implicit assumptions.

MR. RALPH J. BRASKETT: I think it's awfully complicated. I realize all of you up there probably represent your clients and, therefore, you can charge them for this wheel spinning, for these wonderful models. When I do pension valuations, I try to

keep my rate inside the Internal Revenue Service range because neither I nor my clients have time to argue with the IRS, and I get in trouble if the IRS calls my clients. I think you should look at the gains and losses over a 3-5 year period. If you have a consistent pattern of gains and losses, you should change your assumptions to reflect that pattern, unless there's some overwhelming reason not to. I certainly don't do it after one year, but might after 3-5 years. Now that's what I learned when I was studying and working as an actuary, and I wonder what's wrong with that approach. I mean, that was the classical method of doing pension valuations, and I wonder what's wrong with that approach in this day and age.

MR. DASKAIS: There is at least one reason that might be wrong. In the early 1980s I was working, as I am now, with the Department of Defense in their negotiations with pension costs with defense contractors. A particular defense contractor was using a 7% investment return assumption. The various powers that be in the defense contract administration wanted that particular contractor to go to at least 9%. At the time, long-term government bonds were yielding 11%, 12% or 14%. The plan was overfunded. Because of the conservatism in the past and the fact that the particular contractor had declined in size, there was probably enough in the pension fund to fund the benefits, in perpetuity, if the company did not grow further. And the contractor came in with his actuary and his investment specialist and said, "Hey, we've only experienced an average return in the last five years of 5%, why are you asking us to raise the assumed investment return?" Now, of course, the reason that they had experienced a very low return was that interest rates had risen considerably from maybe around 8% in the late 1970s to around 14% in the early 1980s, and the stock market had reacted correspondingly.

Basically, this contractor's advisors were using a rise in what I think is the best index of the expected return on fixed-income investments, namely bond interest rates, bond yields. This contractor was using an increase in expected bond yields to justify a decrease in expected return because the experience was poor. And I know it's very hard for all of us actuaries to understand that when yields go up, bond prices go down, but a lot of other people can understand it. Anyway, that is one instance where I think just choosing a set of assumptions, which may be appropriate at the time, and then assuming or then operating on the basis that we will only adjust for our assumptions when we have gains or losses, is inappropriate. And, in that sense, the investment return assumption is quite different from most other actuarial assumptions in that there is a very highly organized, liquid, and efficient market in expected investment returns on long-term fixed-income investments, and it's basically the government bond market.

I find it very difficult to go through any of the building-block processes and anything else and then get a result that is materially different from the yield on long-term government bonds adjusted for plan characteristics, different investment policies, and so forth, and then say that could possibly be right because the expected return can't be much different from that on long-term government bonds dealing with the expected return as a future event. The expected return is not what we've earned in the past. We might have assets marked to market or we might not. But we have a set of assets and we're trying to find out what the expected return in the future is on the assets of the pension fund.

ASB STANDARD ON SELECTION OF ECONOMIC ASSUMPTIONS

MR. JOHN B. MOORE: I think it's terribly important to remember what our job as an actuary is. We're not predicting the future; we can't, we don't know what the future holds. We are projecting a reasonable scenario of what expected experience might plausibly be, that's the best we can ever do. And I'm reminded of my old mentor, Dennis Bronson, when he said an insurance company always hedges its bet rather explicitly as a guarantee, knowing its going to have to meet that guarantee, and that guarantee has to be less than what the insurance company actually expects to earn." Well, in the pension business, in trustee plans, the Internal Revenue Service won't let us do that. If we're not going to use implicit assumptions, and I don't suggest for a minute that we should, we still have to hedge our bets a bit. I'd like to know if any consideration was given in the preparation of this draft to the fact that the actuary still has to have a cushion for implied contingencies. An actuary must have that, particularly for Taft-Hartley plans. You can argue that you've got an annual valuation and it's a self-correcting device. That's fine if you've got that kind of a plan. Suppose you have a Taft-Hartley Plan where you only do the valuation every three years or it's a cents-per-hour thing where every error is really dangerous. How about that?

MS. STEFFEN: The article by Ed Burrows in the *Pension Section News* that Fred mentioned also points this out, and it was reflected in some of the comments in Phoenix as well. I think what you're directing your comments to is the element of conservatism. The actuary has to protect the plan and the plan fiduciaries against some real risk. I work in the public arena. To raise contributions is not a case of going to a corporation and saying you have to put more money in the pension plan this year because our expectations didn't pan out. In the public arena, you have to go to the taxpayers and say we're going to raise taxes. Again, it's probably much more serious, maybe parallel to the multi-employer plans. This is one of the biggest critiques of the current standard. Reading through it, it seemed to imply a lot of weighing towards current rates and yields; yet I don't know given the current yield, if government bonds are necessarily, the things to look at. But I think you have to keep in mind that our approach is a long-term approach and an element of conservatism is in there. And Ed Burrows did ask for more comments on this issue of conservatism.

MR. SMITH: I think the standard is primarily a textbook, and I don't believe that a standard of practice should have any textbook material in it. I have a couple of examples of this. The sentence "If inflation affects the benefits or operation of the plan or its experience, inflation must be considered in setting assumptions." Now that's clearly a standard of practice. How you do that is, I believe, a textbook, and I don't think that belongs in a standard of practice. It may be very useful to educate actuaries, but if we're writing standards of practice, isn't it a little late to be teaching them stuff out of *Life Contingencies* by C. W. Jordan?

As to the discussion about the explicit versus the implicit approach to setting economic assumptions, the fact that it should be explicit is one I agree with, but why it should be explicit is textbook material. This leads to the corner I'm going to paint myself into. I think I can take this document, cut it up, repaste it, rewrite it slightly, and cut it down to two pages; and a standard of practice instead of a textbook would remain. Maybe I will do that if there's going to be time to do it. You say your board is meeting next week?

RECORD, VOLUME 19

MS. STEFFEN: Yes, the pension committee. Each proposed standard has a committee as I understand it. This particular committee has been working on just trying to get something in black and white for at least two years. So the committee that is listed in the front of the exposure draft has had a terrible time dealing with this standard and trying to get something down on paper that they could all agree upon. Given the number of comments made here, the committee has an even bigger struggle ahead of it.

MR. LESTER MOSKOWITZ: I'm not sure that I agree. The only other standard of practice booklet that I'm familiar with is from the Financial Accounting Standards, and they have a considerable amount of what you would call textbook material with explanatory notes, illustrations, and numerical examples. Now that may not be proper either, and I won't argue with that. As I said, the only other standard of practice that I am familiar with is what the accountants have developed. Whether that's proper or not, I just don't know, but at least there's a precedent.

MS. STEFFEN: Well, I may be speaking out of turn, but I suspect that this upcoming meeting will not issue a final proposed standard. Actually, Milliman & Robertson's response suggested that the committee take the comments, rehash the issues, get down to some of these other questions, and then reissue a proposed standard. For one thing, let it be out in time for professional meetings like this, and let us discuss it to get more input to the committee. That would certainly help the committee, so I would hope we still have time to act on this.

MR. SMITH: We've been discussing the building-block method of determining an assumption for investment yields. I have to continually remind myself, when I'm going through that exercise, that there is one thing that we know with absolute certainty and that is that the results are going to be a surprise; we must always keep that in mind. It's useful to look at the past, but useful is all it is.

MR. WILLIAM S. WRIGHT: I want to note that many investment textbooks have sections on forecasting rates or the component part of rates, and students master this in a term. I don't see why it should take longer than that to cover the field. And I object to the selection of method by the committee, and the selection of the things they do not take.

MS. STEFFEN: The selection of what?

MR. WRIGHT: Well, you propound certain methods and you do not even mention some other features of the investment market that might well be considered by some plan sponsors as well as by actuaries.

MS. STEFFEN: Right. And some of the overall comments have dealt with the standard's inclusiveness or exclusiveness. That wasn't clear in several areas, particularly regarding methods. Also, in this same issue of *Pension Section News* there is quite a detailed response from the Society's Investment Section Council.

MR. WRIGHT: Yes, that's a very good response, I think.

ASB STANDARD ON SELECTION OF ECONOMIC ASSUMPTIONS

MS. STEFFEN: I'll highlight it. The investment section noted five areas: overemphasis of the building-block approach; little recognition of investment risk tolerance; overreliance on economists and little or no recognition of actuarial expertise; incorrect characterization of government bond yields as a predictor of minimum future portfolio returns; and positive aspects of the proposed standard." So, again, I think all of us who did criticize the standard tried to at least say that maybe it was a step in the right direction or say some positive things about it. I suggest you get a copy of the March 1993 issue of *Pension Section News*. It has three articles on the standard that are very good.

We got off the track of some of the questions, but I think we've covered most of them. Question number two is about a reasonable-range approach. This is setting aside the building-block approach where you determine one rate and adjust it. The range is the one that I actually kind of preempted in the numerical illustrations I put together. The question is, how much weight should be given to historical yields in returns versus current yields? This again gets into, I think, actuarial practice and how much weight. When we look at historical data, one of our input items concerns how much weight. It's obviously not going to be the only thing that helps us in setting investment return assumptions for the future.

Does the proposed standard adequately describe the determination of an acceptable range? The reason I used the numerical illustrations was to show that if you use some type of assumptions in putting together a range you can come up with a sizable range. And this was pointed out again in the Vincent-Elkins court case where they can argue from real low to real high rates and what is reasonable in there. Even having a standard as broad as the one that's currently proposed, there's still a broad range that I think will be considered acceptable. Maybe the question is, should we have a narrower range, should we confine ourselves? The government, and FAS, seem to think we should; actuaries are arguing against it. Does anybody have any strong feelings? I suspect most of us like the general aspect of the proposed standard.

I think what's going to happen is most of us are going to continue to set our assumptions the way we have in the past, and then we're going to look at the standard and say "Well, let's see, how can I justify what I do by what's in the standard?" Really, if we're honest about it, isn't that really what's going to happen? I mean, the standard will maybe make us think more about how we set our assumptions, maybe force us to think more about things like risk return and inflation than maybe we have before, which is good. We have more technology and tools, and maybe we should be spending more time on these assumptions and how we get to them, or explain to our clients how we get to them, which has always been interesting. Five years ago, the rates were double digit and now they're down to 5%, and we must explain why we're still up at 8%; you know, it makes it a challenge. It gets into, again, the long-term conservative nature. As far as allowing us a range, I think the standard is certainly acceptable. I don't think anybody's current practice is being cut back by the standard, as it's proposed, even though it may be textbook-like in its approach. I don't think it is narrow enough, but I don't hear anyone saying the standard is going to force them to change the assumptions they are using.

RECORD, VOLUME 19

MR. KILBOURNE: To me, the most important part of this, and every standard, is Section 6.3, which has two things about it that are worth noting. It's the only section that is intended to be uniform from one standard to the next.

And what is it? It's deviation from the standard. The actuary must be prepared and must do just two things: one, disclose that you are not following the cookbook, the recipe, anything, anything else in the standard; the rest of it is suggestive. The only thing that must be done is disclose that you have not followed the standard in some particular way and be prepared to defend that. That helps me reconcile what otherwise would seem to be an irreconcilable dichotomy. I think Section 6.3 is the most important part of this and every other standard.

MS. STEFFEN: Actually, that leads us right into item three. Dick was going to lead some comments on this item. Actually, it was specific regarding the various methods to disclose, but I think it gets into this issue of acceptable, what is acceptable and what is not? What is in the standard and what is not?

MR. DASKAIS: The first question in Item 3, Should the standard include all acceptable methods? I don't know how the writers of the standard can do that. Well, I'm obviously, as you have learned earlier, against the cookbook approach. I don't know who determines what is acceptable. Presumably it's the ASB. One problem I have is that, if they list all the methods that are acceptable today, assuming we all agree on what are the methods that are acceptable today, some of those methods, five years from now, may become totally unacceptable just because we learn more and there will be new methods.

MR. KILBOURNE: Or worse, there won't be new methods, because the standards acted like my definition of a dictionary and prevented that from happening.

MR. DASKAIS: Right. The next question is, When does a method deviate from the standard? Frankly, I think the standard, as written, with the ranges that Karen showed on her slides, is broad enough to justify almost anything as being within the range. In other words, if you take the second-highest and second-lowest decades, you can go anywhere up to 13% to 15% as your investment return, completely disregarding the government bond market.

As you can tell, I have a bias because I do some work with people who are in the position of being regulators, mainly those that are concerned with the costs that are passed on to the government by defense contractors. Once a standard permits a range, I can be absolutely sure that the various employers will make their actuaries choose within that range, based upon the employer's best interest. In other words, those that are in utilities or government contractors that are looking for third parties to reimburse their pension costs are going to use very conservative assumptions. Small plans that want to put aside as much money as possible for the owner-participant are going to use very conservative assumptions. Plans of those companies that have a real profits crunch and cash crunch are going to use as liberal or as optimistic assumptions as they can use, and they will all fall within this wonderful safe harbor that the standard seems to be giving us. Now, in a way, I view the standard in its entirety as being good in that it calls for explicit assumptions which possibly narrows

ASB STANDARD ON SELECTION OF ECONOMIC ASSUMPTIONS

the range. But then, when I look at the actual range from Karen's slides, I'm not sure it's narrowed the range one bit. Any discussion on this?

MR. WILLIAM W. KEFFER: It seems to me that what we are saying here is the real need is not so much for a standard, but for assuring the ethical behavior of actuaries, and their clients, of course. You don't achieve that by defining a range. Section 6.3, that was noted says "the actuary must be prepared to defend the use of his assumptions if they're outside the range." Well, what if they're inside the range? Don't we have the same obligation to defend ourselves, explain ourselves, establish that we are operating independently and not biasing our judgments in favor of some predetermined conclusion? I don't know what that means in terms of writing standards, but it does seem to me the real problem is we, as professionals, must use appropriate behavior.

Perhaps a reason for all the emphasis on the standards is the legal situation, the Internal Revenue Service situation. It seems to me that we are simply trying to produce something as a defense against, what I would agree are totally unreasonable steps taken by the bureaucrats. They try to tell us what is ethical behavior and appropriate behavior by an actuary, in terms of a specific result. If you carry that to the extreme, I think you would quickly come to the conclusion that you don't need an actuary at all for this process; you simply have some range set up and all that you need is a mechanic or maybe an accountant or a man who runs a calculating machine, and that's not my definition of an actuary.

MS. STEFFEN: The questions are listed here. Who determines what's acceptable and what's within the standard? I think the actuary who's disclosing the assumptions (for instance, we'd say our work is done in accordance with the ASB standards) is saying the work, including the economic assumptions, is within the standard's range. And, if we really think that we're outside the standard, the standard requires us to disclose a deviation, which makes your work suspect or at least questionable, and possibly have some legal risk.

Another aspect is what if you disclose the fact that you're outside the standard. I have a feeling some of this came from the FASB area. FASB seemed to be dictating what we should be doing. Section 6.2 said that if the assumptions are not the actuary's, the actuary has to indicate that the assumption is outside the range of reasonable assumptions or that the assumption is not consistent with other assumptions. I have a feeling that maybe this was a way for the actuary to tell the FASB that what they're telling us we have to do for FASB purposes is not consistent with our actuarial judgment and, therefore, we're forced to disclose the fact that it's different than what we would assume.

Should illustrations be included in the standard? I think the general consensus is these illustrations should not be included. There were quite a few comments on the particular illustrations that were given. I have some personal comments on them myself. But there are the legal risks of having a specific standard; will it be held up against you? In other words, it could help you if someone's against you; and then, on the other hand, it might hurt you if someone's trying to say that you're outside the standard. Should the standard be applicable to measurements of pension obligations other than actuarial valuations used to determine plan contributions and cost? In the

RECORD, VOLUME 19

Phoenix testimony, this question came up and I'd just like to point out that Mary Adams felt that her committee was looking at mostly valuations, they didn't think it would apply to court testimony, dissolution testimony on pension obligations, or insurance company reserves. Actually, Dick, it was your comment, too, so why don't you deal with that?

MR. DASKAIS: My concern is why should the actuary testifying on behalf of one party for marital dissolution be given more latitude or less in the way of standards than that same actuary or another actuary would be given in valuing the pension plan. And the same thing applies to insurance company reserves for group pensions, except there was usually some outside standard. My conclusion is that every actuarial statement of a life insurance company must have a footnote that says, "I didn't do this according to the actuarial standard on pension plan valuations; I did it according to the insurance company regulatory procedures." This would probably bother a lot of people who are concerned about putting in anything that appears to be a qualification in insurance company or other statements.

MS. STEFFEN: I'd like to go back to question number four. It's my understanding that this is really the first of at least three standards that the pension section of the ASB has on its agenda. This one deals with economic assumptions. They also are looking at the actuarial valuation of benefits (it should be the asset methods; it says benefits, but it's asset methods). Originally, that was included in a scope of economic standards, in this standard, and they decided the topics were too much to incorporate in one standard, so they segregated that out to a separate standard, and then eventually added one on demographic assumptions.

My question to Fred, being an ASB member, is how can you issue the economic standard without knowing what you're going to ask for on the others? To me, it would make more sense to propose all three and see how they interrelate. Maybe that's not feasible?

FROM THE FLOOR: That applies only if you use implicit assumptions.

MS. STEFFEN: Well, that's true. Then we get back to explicit assumptions. It seems that when you have areas that do have interrelationships, and you're proposing standards, it would be nice to have them all out on the table before you adopt one.

MR. KILBOURNE: Yes. The pension committee, in its wisdom, handles a lot of these things. How do you keep up with what's going on and know where the different things are? I'm a member of the board and I keep up with things and I know what's going on until the next meeting.

The first place I usually go is the same place that's available to everybody else and that's the *ASB Box Score* that comes out monthly. Now one of the things the pension committee is doing is just reformatting Standard Number 4. There's also a discussion of that on the first page of the *March Box Score*. At our January meeting, each of the committee chairpersons told how things were going and what was planned. Mary's report talked about standards currently under development, their time frame, and new projects. And there was another listing fairly close but not identical to the other one. And then in the discussion draft of the reformatted

ASB STANDARD ON SELECTION OF ECONOMIC ASSUMPTIONS

Number 4, it talked about keeping in mind the long-term objective of developing separate standards on economic assumptions, demographic assumptions (now being referred to as noneconomic assumptions), actuarial asset valuation methods and actuarial valuation funding methods. When these standards are in place, Number 4 will be completely revised to become the shell that would hold all of these together. The whole thing is an iterative and evolving process, but it may not be an adequate response.

MS. STEFFEN: Well, again, I think we have to recognize that the committee has spent a lot of time on a very difficult subject. I think we have to give credit where it's due; these committee members certainly have their work cut out for them, and we can sympathize with what they have to deal with.

MR. ROBERT W. E. NEWTON: It's my experience that the attitude is generally, if it isn't broken, don't fix it. As far as I'm concerned, we've done a good job in setting assumptions and the standards should be set to reinforce the things that are good about what we are doing and to correct the things that are bad. This document does not reflect any current practice, any kind of approach the actuaries currently are taking. A lot of actuaries are taking the approach of looking at the past and trying to blend in the future, using some iterative approach that is changing the interest rate on the year-by-year basis. If you had justified ranges back in the 1980s, you probably would have run up with 12-13% interest ranges, which clearly today would have created a lot of funding problems. The Pension Benefit Guaranty Corporation was highlighting this as being a major problem.

