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Addressing the Financial Risks from Retirement Systems Seminar: How Consideration of Risk May Change Plan Sponsor Strategies

Track: Pension

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Summary: Before ERISA and SFAS 87, various provincial Canadian legislation and CICA 3461, there was little financial regulation of defined benefit (DB) pension plans. An actuary's advice to clients on funding and other aspects of plan financing was based on the costs and risks inherent in the plans themselves. With the passage of ERISA and parallel legislation in Canada, plan funding in most cases became a matter of meeting minimum funding standards without exceeding tax-deductible limits. The advent of SFAS 87 and CICA 3461 set similar but different standards for reporting pension plan liability and expense on the company books. Over the last 30 years the inherent risk plan sponsors face from their pension plans has changed. Thirty years ago, DB plans were relatively smaller in relationship to the plan sponsor's core business or sponsoring government's infrastructure. A graying baby boom population, increased longevity and contraction of old-line industries have combined to increase the cost and financial risk engendered by pension plans. Once small fringe benefits, retirement plans have grown to become substantial financial commitments with the accompanying risk. Many plan sponsors

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have reacted by terminating or freezing plans and moving to defined contribution (DC) plans. In the meantime, the tight regulatory environment for private plans has led sponsors to lose sight of these changes in the bustle of compliance with myriad complex and obscure rules. Actuaries must help plan sponsors get back to the basics: the costs and risks inherent in DB and DC plans before the accumulated overlay of regulation.

MR. KENNETH A. KENT: I'm the moderator, so I'm hoping to step back and let the panel take control. Mike Peskin is with Morgan Stanley. Mark Ruloff is from Watson Wyatt. Malcolm Hamilton is from Mercer. Bill Sohn, who was going to be with us, is not feeling well, so Mike is going to stand in for him, and Sean McShea from Ryan Labs has joined us as a replacement. Matt Sloan of Davis Conder Enderle & Sloan is on the panel as well.

I'm going to give a brief overview if you forgot everything that you heard this morning. Each of our next presenters will set up topics. Matt will cover funding risk. Bill was going to cover accounting, and now Mike is going to pick up that. Mark will cover the investment risk. Malcolm will talk about some of the other risks that funds have, and then Mike and Sean will integrate it.

Retirement systems depend on the value and the culture on which they're based. Are we in another transition period? The roots of our system were industrialization replacing people, and a planned process like machines is my take on it—no longer the responsibility of successive generations, but a responsibility of employers and government. Wage and price controls gave rise to pension plans as an alternative to compensation. Phyllis talked about the 1978 Revenue Act and 401(k)s changing the playing field. The creative destruction of capitalism creates more variance. I thought that was an interesting concept and a way to benchmark what we're seeing. Longevity and passage of responsibility and wealth have dramatically changed.

Continuing, a new dynamic labor industry is churning. We talked about government's role to take care of those who can't take care of themselves and to put in place programs to keep that group relatively small. That was an interesting concept. We talked about ownership society versus collective action; employers under the individual ownership approach will become facilitators versus providers, which is a trend we see both in pension and in health programs today. Risk of the individual has demonstrated that they're not well-motivated savers. As far as behavioral economics, individuals are not rational economists. The average account balance in 401(k) plans is only $77,000, and financial literacy and education are critical components.

We then had the next session, which identified risks inherent in retirement plans. Chief financial officers (CFOs) are ready to de-risk their plans. Equity analysts are using their own values and splitting income up. Bond analysts are later-comers to the table. Standard & Poor's (S&P) says unfunded on projected benefit obligation

(PBO) basis is treated as debt and equity exposure as leverage. Moody's focus is on cash flows. Predictable cash flows are still a focus but not seen as a sufficient answer. We heard about a case that is becoming all too familiar to us about DB plan abandonment.

Then we heard about enterprise risk and risk budget. Appetite for risk is a concept that I've heard used. We talked about the ability to take on risk and how much the retirement plan is using up. Then we talked about the various risks to look at under an enterprise risk system: strategic risks, plan designs that are option risks, financial risk, rating agencies, other credit risks, long- and short-term perspectives, operational risk, robust governance of plans (employee communications is an example), hazard risk, legislative risks and court decisions. Enterprise risk management (ERM) qualifying risk, linkage and correlation and appropriate "appetite of three" are concepts that Jerry pointed out.

Here we go with our session.

MR. MICHAEL WALTER PESKIN: Bill gave me some notes, so you will hear some of Bill's thinking. Accounting is important. Managers are acutely aware of the influence of financial reports on share value and also on their own compensation. Economic deals are based on perceived values, even if they differ from real values. In other words, perception becomes reality. Accounting is economics, even if the accounting has the wrong economics in it.

No one likes FAS 87. It's based on uncommon principles: delayed recognition, plan changes, gains/losses, etc. In the net cost calculation, offsetting assets and liabilities, you don't see the whole picture; you just see the offset amount. Think of the balance sheet item as an unfunded accumulated benefit obligation (ABO). As far as costs reflecting future salary increases, nowhere else in the accounting are future salary increases included in costs. These principles lead to weaknesses, including a lack of transparency, not market value of assets, smoothing, deferral, insufficient cash flow information and too much reliance on assumptions. Again, there are a few other accounting items that are assumption-intensive, but nothing beats pensions for assumption intensity.

FAS 132R, introduced in the last year, requires much more disclosures on cash flows, asset allocations, how the choice of expected rate of return is made up and more timely disclosures. But good disclosures do not replace bad accounting. Some analysts pick up on the footnote disclosures; others don't.

A Coronado-Sharp study noted years ago that share values reflect the reported earnings incorrectly. In other words, Coronado and Sharp, in their study that went up to 2000, found evidence that share values were simply taking the income or expense (but it was income at that point in time, because plans were well-funded and the expected rate of return was much higher than the discount rate) and applying the same multiple to that as if it were operating income.

There is some evidence that in 2001 and 2003 the market was looking more clearly at benefit contributions. Anecdotal evidence is that the analysts like S&P and Moody's ignore the footnotes and adjust the earnings, as I outlined this morning. According to Bill's notes, the best analysts like the situation as it is.
What are the biggest issues now in FASB thinking? Plan shutdowns cause a problem, as to how to account for that. Accountants always have difficulty accounting for contingent issues. The discount rate currently used is simply a long-duration corporate AA index. Most corporations use the Moody's AA. They did it, at least until recently, because the Moody's AA had the highest discount rate. They had it because they had a lot of split-rated bonds in there. Some were rated AA, some rated A, with worse. They had a lot of callable bonds in there, but they were using the yield to maturity instead of the yield to call. Moody's has tried to fix that. Now they've put in a lot of putable bonds to try to make up for the callable bonds. There are much fewer split-rated bonds, because most of the split-rated bonds that they had in there became non-AA. They went down. There's probably now less of a gap between the Moody's AA and the corporate. I'll turn to Sean.

MR. SEAN McSHEA: The Moody's AA Index is a horrible benchmark. I wouldn't recommend that anyone use it. It's 19 bonds. It doesn't have a yield curve. You can't buy it. There are no financial bonds in that index. It's an index that was created in 1935 as a communication mechanism. It's a relic, and it belongs in a museum. When you think about Sarbanes-Oxley, if you can't buy it, you probably shouldn't be recommending it. There's not a single money manager that I know of in the country as an integrator that runs money verse the Moody's AA. Moody's is aware of the pros and cons. If you need a white paper on the issues of the Moody's AA, just give me a business card and I'll e-mail you the 10 flaws in the Moody's AA.

MR. PESKIN: PBO versus ABO is something that's being questioned, and we'll get back to that in the discussion. The accounting standards are clearly not in the world of fair value.

That's the kind of opening comments that Bill would have made. I'm sorry that I cannot fill in for him later on what he would have said.

MR. MATTHEW T. SLOAN: We're going to give you an overview of what we see as issues in each area to get things kicked off, and then a little later we'll open the floodgates and turn it over to you.

One of the things we heard this morning is that pension plan funded status has really been in the news the last few years. It has attracted a much higher level of attention from pension plan sponsors. I've had more meetings with CEOs in the last three years than I had in the previous 10 or 12. We know that reported plan funded status has gone down. Mike may have quoted that it went down from an average of 130 percent five or six years ago to about 80 percent sometime over the past couple of years. That's a dramatic change.

We know that contributions in recent years for many plan sponsors have been increasing. What makes this kind of session timely is that funding risks have never been more apparent than they are today. One of the themes we're going to keep coming back to today (and probably throughout this week) is whether or not the funding of a pension plan is more of a line item cost issue to be managed each year or more of a balance sheet management issue.

Historically, the focus has certainly been on the line item cost. The question is: What is my contribution requirement going to be this year? In that context, risk is viewed as high contributions or as large fluctuations in contribution amounts, particularly if the contribution fluctuation is in the upward direction. In fact, a lot of the rules and conventions that are in place in the determination of contributions deal with managing that risk in annual contributions and smoothing that risk in annual contributions.

Over the last several years, the focus on funded status has increased. It's a trigger for certain bad outcomes, like notices to participants and PBGC variable premiums. It's also a trigger that can cause contributions to spike upward. It's also recognized on the accounting side in terms of there being balance sheet recognition when there's additional minimum liability. In addition, plans that are underfunded by $50 million or more have special reporting requirements, both on the plan funded status and in their corporate financial information to the PBGC.

Certainly from the big picture, taking a balance sheet perspective to pension funding is more important and more high value than a line item cost perspective. Simple arithmetic can help support that statement. A balance sheet item, a value of an asset or a capitalized value of a cost today, is the present value of all the future years of that item. A one-year contribution focus is just dealing with one year out of that infinite future. It's certainly more important to address all time and the present value of everything that's going to happen in the future as opposed to just one year in that process.

Most of the discussion on funding is going to be in the second half of this session. There are a lot of questions with which we want to deal specifically. What are the risks of underfunding a plan? What are the risks of overfunding a plan? When we talk about overfunding or underfunding a plan, relative to what? What kind of price does a sponsor pay when the sponsor seeks to lower contributions by taking on investment risk? Is there a price that sponsors pay when they don't seek to lower contributions by taking on investment risk? How should sponsors deal with smoothing items like asset measurements and liability measurements? How do sponsors currently make decisions about whether to take on risk? We talked about whether reflecting risk would change sponsor decisions. Is it already affecting sponsor decisions? Have sponsors over the years had a fairly constant perspective on risk and the risk position they're willing to take and where they take risk on their corporate balance sheet, including where they take risk regarding the pension plan?

Or has that position on the risk spectrum changed over time? If it has changed, why is that? Finally, what can sponsors and actuaries do to improve the situation?

Obviously we want a lot of input from all of you, and we look forward to discussing some of these questions when we get into the second half of today's session.

MR. MARK T. RULOFF: Where are we today with DB plans? Years ago, a long-term actuarial model used for budgeting contributions was also adopted for some very short-term tasks that really should have been snapshot views. Accounting should be a snapshot view. Where are we today? Testing a plan for solvency should be a snapshot view. Where are we today? How much do we have to contribute to make the plan solvent?

This has encouraged significant allocations to equities. Recently, plan sponsors have suffered for this. Because of the problems in pension plans now, there has been a lack of public trust in DB plans. Shareholders, participants and taxpayers have a lack of trust in DB plans. There are calls for transparent accounting, solvent funding and PBGC premiums based on risk. Plan sponsors want to reduce their risk. One of the ways they're doing that is through moving to DC plans. Basically what we have is an asset and liability mismatch risk. We have a secure promise backed by risky assets. What's one way of getting rid of that mismatch risk? Well, you make your promise, your benefits, just like your assets. They're moving in tandem. You now have risky benefits and risky assets. The mismatch is gone. What's another alternative? We could go to less risky assets. Keep a DB plan, but remove the risk from the asset side.

When we go to DC plans, we actually don't get rid of the risk. We simply pass the risk on to the participants. On top of that, we probably increase longevity risk. People who live longer are going to run out of assets. It ends up hurting society, because society is going to have to pick up that shortfall. It also hurts the plan sponsors in certain ways. It's hard to manage getting your people to retire early or getting your people to stay just when the economy is picking up, based on their 401(k) balances.

Managing the risk on the asset side in a DB plan will still provide secure benefits, will reduce dependence on society, and will also increase shareholders' value. Now you might ask, "How does it increase shareholders' value?" It does it because it reduces risk, and there are tax benefits to it.

Let me try to explain this. First, if you say that you're going to go to less risky assets, let's say bonds, then your equity risk premium disappears and the cost of your plan is going to go up. Let me challenge the notion that low cost is the same as value. Let's say an individual came in to me and said, "I would like you to be my investment advisor. Here's what I'm currently doing. I'm saving one dollar a year. I went and ran an optimizer, and it determined that if I need $1 million to retire, the best way for me to get that million dollars is by buying lottery tickets." He has

come to me for advice. Or he has come to you for advice. Can you give that person some advice? Would you call your advice valuable? Would his cost go up from one dollar? Probably so. We need to realize that low cost and high value are not the same.

Next think about risk. If we look again solely at the pension plan, and we say, "We're going to reduce the risk on the asset side in the pension plan," the costs are going to go up. We lose that equity risk premium. But take a step back. Look at risk from the entire corporation. The corporation can take risk in many different places. If they're an oil company, they're very good at drilling for oil and finding oil. They might want to drill in more places. If they take the risk out of their pension plan and they instead take more risk in drilling for oil, their earnings from their core business will go up, perhaps more than enough to offset the higher cost in the pension plan.

Last, let me talk about tax advantages. Let me talk about it on an individual basis right now and then extrapolate it to DB plans. Say you have an individual who has $100,000 in savings. The individual decides that the appropriate risk level is to have 60 percent in stocks and 40 percent in bonds. There's no dispute on the risk. The person now has the opportunity of putting $14,000 in a 401(k). The person realizes he or she can't save anymore, so the person is going to take part of the $100,000 savings and simply move it into the 401(k). What assets should be put in the 401(k)? The person should move the bonds into the 401(k) because it avoids the high income taxes on the bonds. The individual still keeps the "good" tax, the long-term capital gains tax, on their stock. That same idea holds for a DB plan as well, but the math is obviously more complex.

So what are we going to do? The investment risk inside DB plans has materialized. Proposed changes to accounting and funding are no longer going to overlook this risk. The question now for us and for society is: How are we going to address that risk? Are we going to move to DC plans, basically passing that risk on to the participants, or are we going to look at the skills that we have, look at the advantages to actually reducing the risk in a DB plan and take on that challenge?

MR. MALCOLM P. HAMILTON: I'm a pension actuary from Canada, so whether you like it or not you're going to get Canadian examples, and the Americans will have to decide for themselves whether things in the United States are as bizarre as they are in Canada.

My topic is to speak about risks other than the risks already discussed, so it's a broad topic. I'm going to avoid demographic risk. I'm going to mention the kinds of risk that irritate a Canadian clientele. I'm going to exclude what was being talked about before, which is the risk that pension plans run that sort of derive from the capital markets.

The first and probably biggest continuing frustration for the Canadian plan sponsors

is that they are subject to a lot of business risk. They feel that they need to change their business direction frequently and dramatically. They are always trying to reposition. They're always changing their business model and their business strategy. You can ask the question: Does their pension plan help them or hurt them? I think to a client they would say that their pension plan hurts them because they can't figure out any way to make it move. It's completely unresponsive to business direction.

Let me explain by example. I have one client that found the competitive landscape changing and wanted to reduce the cost of its pension plan and the risks to which it was exposed. There was a meeting with the board of directors. We went in and said, "Okay, here's the problem. The problem is that 60 percent of the money in the pension plan is for people already retired. You legally can't do a single thing about that. If you look at the other 40 percent, 90 percent of it is for union members. Short of going to the collective bargaining table and winning a victory that you've never ever been able to win, you can't do anything about that. The remaining 10 percent is for your non-union active employees. You can't do much about the past service part of that, but you can do something about future service." What they decided to do was to have a less good pension plan for future managerial new entrants. That's going to solve roughly 15 percent of the problem, but it will take 30 years to get that 15 percent solution implemented. We all know what's going to happen when they get 10 to 15 years into it and they have a class of managerial employee that's treated less well than earlier managerial employees and less well than collectively bargained employees. That's going to be no treat either. So the risk is that your business changes, and you have this albatross that you can't change with the business.

The other kind of risk that really irritates them is what I call legal risks. We have legal risks imposed in Canada by politicians and legal risks that are imposed by the courts. The clients dislike them both, but they blame different parties. Let's first look at an example of the kind of legal risk we run coming from politicians. Four or five years ago, the minister for finance in Ontario came back and told the bureaucrats that he had just been to a cabinet meeting and good news, the cabinet had agreed with him that all pension plans should be required to give any member with a reduced life expectancy the opportunity to commute his or her pension and take a lump sum instead. The bureaucrats said, "Well, that's magnificent. Where did you get that idea?" No one ever did find out. Then they started asking what it meant. Did that mean people retiring who had reduced life expectancies would have that right? No, anybody. Did he mean just active employees, on termination of employment? No, anyone retired. Any pensioner lying in a hospital bed could, if the pensioner could get his or her doctor to write a certificate saying that the doctor thought he or she would die in the next two years, commute his or her pension. Everyone asked, "How do you think you're going to calculate the commuted value of the pension of somebody dying in a hospital?" He basically said that he had the good ideas but it was up to them to implement. To make a long story short, we now have a standard in Canada that basically says that you assume the person lives

four months from the point in time that the person produces this request to commute. It all became redundant.

It's an example of politicians just shooting off. Sometimes you can save the day and sometimes you can't. In Ontario in the 1980s, politicians decided that if you wound up a pension plan, anybody whose age and service added to 55 would get an unreduced pension at the same age the person would have gotten it if he or she had continued in the plan. We had all these plans that said if you stay until you're 60 with 20 years of service you get an unreduced pension, but if you leave when you're 50, you have to wait until 65. Basically, if you wound up the plan, the deferred pension that was supposed to start at 65 now had to start at 60. Nobody complained much at the time. They did it at a time when interest rates were high, wind-up liabilities were low and plans were well-funded, so nobody thought much about it. But if you look at it today in a low interest rate environment, it's riding roughshod over all the going concern funding rules. It has become the basis that's used to fund most pension plans in Canada.

Those are political risks. The other kind we get is courts. I'll give you the sad story of Monsanto. In 1969, the Ontario government put in an obscure regulation. It wasn't even in the act; it was just a regulation that said by the way, if you wind up a plan in part—that wasn't well-defined—members have the same rights and benefits as they have if you wound the plan up in its entirety. Nobody thought it meant anything, so everybody ignored it. When we got to about 1988, for reasons nobody fully understood, the government said, "Well, that's a good regulation. Why don't we elevate it and put it in the statute?" It moved from regulation to statute with virtually the same wording. Nobody thought much about it. In 1997, Monsanto shut down a plant at a time when its pension plan had a surplus and submitted the report that said, "We don't intend to do anything with the surplus. We just intend to pay the members what they're entitled." The Superintendent rejected the report and said, "Everybody knows what the law in Ontario means. If you wound up the plan in its entirety, those members might get some of that surplus. So if you wind it up in part, they should get some of that surplus." The Superintendent lost at the Tribunal, and then the other side appealed it to Divisional Court and won. They won in the Ontario Court of Appeal and they won in the Ontario Supreme Court.
So in 2004 we basically had the definitive interpretation of a 1969 regulation, 35 years later. It's retroactive. Nobody knows how far retroactive it is. We know there are several hundred partial wind-ups that will have to be reprocessed. If you ask any kind of challenging question about how to do it, you get blank stares from everybody—from the regulator, from the lawyers. This is a court-imposed risk, and it's a big risk.

We had another one recently where the courts decided that notwithstanding the fact that a plan merger had been approved and the plans had merged about 15 years ago, the judge decided the trusts hadn't. The trusts had remained separate even though there was a single plan. Unbeknownst to anybody, there were two trusts, and you had to separately track the surpluses in the trusts.

Clients can get their heads around their financial risks. They can model them. They can hedge them. They may not like the cost and they may not like the complications, but they feel empowered to do things about those risks. But with these things, you know you can't hedge any of these and you can't really avoid them. There's not a lot you can do. I find in many ways that the DB plan in Canada is more threatened by these kinds of things than it is by the more obvious financial market risks.

MR. McSHEA: I'm the president of Ryan Labs, and I am an integrator. It's my job this afternoon to share my integration experiences, my struggles and my frustrations.

First, we probably should define what an integrator is. Those are folks who get involved with asset allocation. That's money management in our case; we're a fixed income money manager. Integrators get involved with performance measurement, both in time-period returns and dollar-weighted returns, because I believe that client objective is actually measured in dollar-weighted returns as opposed to time-weighted returns. I spent most of my life during the 1990s as a pariah. I traveled around to corporate, public and Taft-Hartley clients to try to develop surplus optimization strategies. When the water is so high and the rock so low, I can tell you that my success was moderate at best. I spend all my time now focused on deficit reduction strategies, building strategies to help and create blueprints, or, to say it differently, to write scripts for my CFOs, my Taft-Hartley trustees and my public side finance directors. How do we get back to full funding, and how long is it going to take (with some maybe fair value and economic content mixed in there)?

One of the greatest problems that we see as integrators is the silo effect. The silo effect is where you have very bright actuaries optimizing an actuarial structure. You have very bright Wall Street money managers operating in their own world. The plan sponsor and the art of the accountant are optimizing together. The biggest problem we have for looking for leadership is that the actuarial community has to think of itself as a co-fiduciary and show more leadership with the client, because at the end of the day, the objective of the money is to fund the liabilities at the lowest relative cost and the lowest relative risk. Who is the keeper of the objective? We are. We can't get started as an integrator to make a recommendation on asset allocation or performance measurement or money management without getting the data sets from the actuary.

I believe that part of the theme today should be: either get up and lead, or get out of the way. I know that's kind of harsh, but that's how serious it is when I come to meet with a hospital that doesn't have a big father or a big family to write a check. When I meet with my Taft-Hartley clients that are 50 percent funded, to have the pink elephant in the room saying, "How do we get ourselves back to full funding?" is very, very difficult.

When we meet with our clients, we have a behavioral finance issue. First we have to tell the clients that they're sick. When we think about where we stand today, we calculate, between the multi-employer plans and the corporate-sponsored plans, that we're looking at approximately a $600 billion deficit at the Pension Benefit Guaranty Corporation (PBGC). Now if the savings-and-loan (S&L) crisis was a crisis of $100 billion, this crisis at the PBGC is six times larger than the S&L. If you remember how we solved the crisis at the S&L, we issued bonds. We issued zero coupon bonds. We haven't actually solved the S&L crisis; we've just kind of put it off. We issued FICO and REFCO bonds, which we purchased for our public and corporate pension plans as an interest rate hedge. But those bonds are going to be coming due. Technically, at the end of the day, how the PBGC gets themselves out of their deficit is that they are going to have to issue agency bonds, and as a stakeholder, we're going to have to pay that difference.

So when we look at the issues as an integrator, you make our job very hard. As an integrator, as a bond portfolio manager, we're not very sexy. As a matter of fact, we're not very greedy. All we can really do is help with risk management. As Mark talked about earlier, doing ERM for a public or a corporate or a Taft-Hartley client is difficult. Why? Mean variance optimization. Pro forma return on assets (ROA). When I had a meeting this morning with a client whose ROA is in the vicinity of 8.5, they made it very clear to me that they're trying to solve for a mean variance 8 percent. Bonds have an assumed rate of 4 to 4.5, so any bond I purchase below my ROA hurdle rate is a drag on performance.

But when you ask the client, "Is the term structure of the liabilities in the mean variance model?" They tell you no. The mean variance model is an asset-only framework that has caused unbelievable problems and issues for us as integrators. I'm all for smoothing. I can't wait to see the smoothing they put together on the DB side, because if they do DB smoothing, I want them to start doing DC smoothing. I want to be able to call up my Fidelity or my Vanguard and get my three- or five-year smooth net asset value (NAV). Let's be fair, Mark. Did you put that down as a solution?

MR. RULOFF: No.

MR. MCSHEA: When Mike and I were at the Federal Reserve meeting in New York and they were putting together different smoothing, smoothing just becomes a risk transfer agent. It becomes a transfer between either the plan sponsor or the plan participant. There's no room for smoothing. Smoothing makes me feel good, but, as I communicate to our clients, there's no financial content in smoothing.

We really need help on the public side. As far as the risk transfer issues on the public side, in terms of politicians, I don't care if you're a blue state or a red state. I met with a governor in New England. He moved his liability-smoothed actuarial underfunded number from a 15-year amortization to a 30; he didn't find any problems with that. I met with another governor, a very popular governor in the

southeast. He moved his smoothing from 15 years to 40, only to be told from his actuary that for GASB 25 he's going to have to move it to 30.

When I worked at Arthur Anderson, we used to smooth gains, but we never smoothed losses. We wanted to show the losses as quickly as we could on the accounting side. But being a special purpose entity, which a DB program is, the off-balance-sheet implications of a DB lend themselves to the Enron analogy—do the pro forma, do the smoothing, do the off-balance sheet.

There are a few things I could use your help on. We honor the actuary. We can't get started with our work until we get the data sets from the actuary. We ask for a projected benefit schedule going out as long as the participants live. Now you can argue that you're looking at a closed group with current service and current salary, like an ABO type-projected benefit schedule, or a PBO with a closed group with future salary and current service as a projection. I don't care. But give us some kind of data set that can help us start with a solution. We need to understand the economic solvency. I didn't use the word "funding" because that's your word. I get myself ripped up when I use the word "funding," so I change the word. I talk about "economic solvency." We have to know the economic reality.

Help us manage the behavioral aspect. Once you go through the economic solvency, the first thing the client does is get angry. Isn't that the first phase? Then the second phase is denial. The second vendor comes in, because after you do the missionary work you don't get invited back, right? The third phase is that they ask, "How do we fix this?" So economic solvency, if you can make it through those first two phases, is very exciting for our clients.

How do they get back to health? We have to take the approach that we're going to give the patient a proper MRI, a proper x-ray, to tell the patient where he or she actually stands. I told that client this morning that they should fire their money managers and give all the money to the actuaries, because if you can get an 8 percent in one-year paper, you have the wrong group. Give it to the actuaries. If you can get 8 percent in five-year paper, you have the wrong people. If you can get 8 percent in 30-year paper, give it to the actuaries. We just can't get these numbers. When you actuaries make pronouncements, you have trust. The clients like you. So this number that you use, that horizontal yield curve that's technically mispricing your liabilities by close to 400 basis points, is very important. In real terms, if you're pricing your liabilities at 8 percent and the Treasuries yield curve (or the AA yield curve) is at 5 percent, and 8 percent minus the 5 percent is 300 basis points, times a 15-year duration, is a 45 percent change in dollars. That's hard for us to make up. There's just no way, with an 8 percent assumed rate, that you're going to make up a risk premium of 500 or 400 basis points after costs. We poll, and *Pensions & Investments* (*P&I*) tells the average asset allocation of a DB plan. It comes to about 60/40. It has gotten more complicated now, but assuming a 60/40 equity allocation, with 40 percent in Lehman aggregate bonds, 60 percent in domestic equity and the remainder or 5 percent in international, we have most

pension plans today at approximately 68 percent funded, with no smoothing. They were as high as 140 percent in 1999. But there's no scoreboard for a pension to read. They wouldn't know what the score was until one year later or six months later when they got the actuarial report. At that point, they can't change who the team is on the field because they don't know the score. So the timeliness of the data that we work with is not helpful.

What's also important that I tell my peers is that Wall Street can't help them. At the end of the day, if you're 70 percent funded, you're a hedge fund. You're a leveraged hedge fund. You're even worse—you're a negatively leveraged hedge fund. There are 10 players on the liability side and only seven players on the asset side. The first thing that has to be discussed is a contribution strategy. The second thing that has to be discussed is a benefit strategy. If you're going to continue to focus on these very large pro forma ROAs, Wall Street has you where you don't want them. Wall Street is going to force you to go into more illiquid, more difficult asset allocation strategies that just work to our advantage. We've put our clients in a very difficult situation.

The last issue I have is generic indices. We meet with clients and we ask them their objective of the money. They say, "It's some type of liability." I ask them, "Do you want the money on time?" You know what they say? "Of course." But I say, "What do you give the client as a benchmark?" "I give them the Lehman Aggregate Bond Index." I say to them, "What does the Lehman Aggregate Bond Index have to do with your objective?"

I'm hoping that, as part of a mission, we get the actuaries to share the valuable data sets you create as part of your actuarial valuation with the consultants and force the consultants to create an input in their model for that liability term structure.

MR. PESKIN: I do largely agree with Sean. You've heard a lot from me. I'm going to talk from a 20,000-foot level in integrating this. We are in a global world where the DB system is in disarray. It is fraught with moral hazard, right through the system. Even the Monsanto example that Malcolm gave was a moral hazard issue. The issue there was a lack of clarity in the rules about exactly who owned the surplus and who bore the risk for the pension plan. It allowed a political system (here, the courts) to extract surplus and to give it to people in the system away from a multi-national corporation. If there had been very clear transparency as to what exactly the promise is—who's going to keep it, who has to keep it, how they keep it, if they take risk then who's bearing the risk and if the risk pays off then who owns that—that system would be much more workable. Clearly the people who bear the risk should be the people who own the surplus. People who make promises should keep them. A corporation shouldn't be able to make a promise if it doesn't fund it, maintain the funding and keep the promise. Otherwise, again, you get moral hazard, which we've had here with weak companies making big promises in the few years before the company goes into Chapter 11, for the simple reason that they could give wages.

I'll go back several years. One of the big auto companies asked me why the weakest auto company had given the biggest benefits to the unions. The answer was clear. They couldn't afford to pay cash. The next bet was on the next motor car. How do they get the workforce to perform? They give them a big pension benefit increase. Why do the employees accept this, if it's going to be at risk? Because it's not at risk. It's guaranteed by the PBGC; it's guaranteed by other corporations who are financing the PBGC. Consequently, the employees get the guaranteed benefits. Other companies are essentially financing the risk and the company gets to make its car. As it turned out, the car was a great success and the company did really well and nobody realized the huge subsidy that had been passed on to that company. Now we *are* seeing the subsidies because companies are going into Chapter 11. They're getting out of their liabilities and the PBGC deficit is ballooning, currently $23 billion. If you measure it by looking at bond rates, the current legacy PBGC deficit is over $110 billion. If the economy does badly, that's going to go up.

What is the solution to this? We've been calling it financial economics. The "we" is a very broad "we." Financial economics is a plea for transparency. It's a plea for thinking about things correctly and getting things right in context. It's marking to market and showing exactly what the liabilities are. What are the assets? How should we be measuring them? There is a need for guidance in this area. Here I have to depart a little bit from Sean. From the people to whom I've talked, which are CFOs, two governors of states and some lawmakers, actuaries are perceived as being a lobbying group, and largely as a lobbying group that is 100 percent in step with industry. They are simply seen as being another industry lobbying group.

If actuaries want to change that perception, we have to change the advice that we give and the way we think about things. For instance, I am finding, in this discussion on funding rules, even on the accounting and investments, that the issue boils down to, if you mark to market and you make companies fund the promises, and you invest in bonds that match the liabilities, that it exposes a whole lot of companies to a huge unfunded liability that they have. What do they do about that? The right answer to that is to divide the problem up into two pieces: an ongoing piece (what do we do about new accruals that we have?) and a legacy piece. If we want to give companies time to solve the legacy piece, that's a solution. But we shouldn't muddy the entire waters by muddying the accounting rules, muddying the funding rules and muddying investment policy in order to accomplish that task. That makes the future a serious problem beyond this legacy cost.

Actuaries do have a special role. Because we do have the ear of clients, we can move clients, and we need to move clients. But we need to move them in a direction that they don't necessarily want to go right now. We need to move them to this transparency that the real costs of pension plans are much higher than they've perceived them to be because the right way of measuring pension costs is at bond rates. That's what the liabilities are. They simply look like long-duration

bonds. If you have cost-of-living increases, they look like long-duration inflation-linked bonds. That's the first step.

You cannot decrease the price of the liabilities by investing in equities or anything else. You may be able to make the pension plan more affordable by investing in equities, but you don't change the price of the plan or the price of the liabilities. Whether to make them more affordable by taking risk in the pension plan is a legitimate question. It's a good question. It's a question that gets into the debate about whether it's better to take risk in the pension plan or risk in the corporation. That's an interesting debate. There are some good arguments for why you should take some risk in the pension plan, despite all the other arguments that you've heard, though no where near the extent to which companies have taken debt. Sixty or 70 percent equities is simply not the right answer. It clearly should differ from company to company and situation to situation.

I'm going to end my comments there, but I'm going to encourage all kinds of questions and issues. We have time. This is an important discussion. I know you've all got your own thoughts, ideas and issues. I know the panel has.

MR. KENT: We've talked about the recent financial period as a "perfect storm" and now most of us are consulting about the devastation. I don't know how interested everybody is after a "perfect storm" to find out that maybe their house just wasn't built well enough to withstand it and talk about the costs of new housing. But that's the challenge. For myself and anybody else out there who's going to meet with a client next week, I'd like to explore how we get them over that. We've heard about the resistance of the clients. They're not likely to say that they're going to throw a whole lot more money into a process. Instead they may just cut benefits and cut and run from DB plans.

MR. THOMAS NAFFE RICE: I'd first like to say as an actuary that DB pension plans have not shown to me to be a failure at all. In fact, I find them to be a success. They're providing benefits to people who, by what the panelists say, would not be able to provide those benefits through 401(k), savings, Social Security or any other way. People are trying to convince us as actuaries why we're doing it wrong. As an actuary, I know that all I have to do is have the employer fund the plan the way that I'm finding the contribution to be under the funding method, with reasonable actuarial assumptions, and they'll fund the plan. It's that simple. If in good years you raise benefits, then as an actuary I know what the cost of that will be. In bad years, when I hate the plan and they hate the contribution levels, then you can say, "Have a rainy-day fund where you can make up for the higher contributions. In good years, you have the low contributions."

I hear trends. I hear people say that 401(k) is the only way to go. When the market is up, I hear members saying to go that way. When the market is down, I hear that 401(k) plans are a flop, members don't want 401(k)s and DB plans can provide what you need. I never understood why 15 years ago or 20 years ago, when the

patterns of the country were changing demographically and the workforce was being loaded up with gender base coming into the field and the baby boomers growing, defined benefit plans just didn't have a cash-out offer. If we had to improve the vesting schedules, it would have been quite simple. If somebody comes to work for five years and doesn't want to wait 30 years to get a pension, give them their cash. That's all the 401(k) plan does.

Did we really have to go through this for the last 10 or 15 years, trying to find microscopic ways to understand what the actuary is telling you? Is it not possible that the profession is able to see things in a broader way? As actuaries we are professional, and we see things most people probably don't have any reason to look at. One thing we know is that if you tell me that these are your liability potentials through your benefits and this is your population and that you're an ongoing company and you will probably be here 80 years from now and you have no intention of being gone in five years so you better vest everybody, I as an actuary can say to myself, "We're going to look at your projected liabilities, and we're going to put you into a pattern of reasonable funding. You stick with me and we'll be there." But if along the way everybody reacts to snapshots and current developments, you're going to be flipping back and forth. Six years ago, everybody was telling me that there's no room in plans for fixed income. "One hundred percent equity is the only way to go." "You're a fool if you don't go into venture capital." Now I'm hearing 100 percent in fixed income and you're a fool if you have equities.

We as actuaries know that historically, the future trend may very well be the historical. If I have a trust with a balanced portfolio and I can look back historically and I can look at the trend, a balanced portfolio gets us where we want to be. If it doesn't, we fine-tune it. If we want to take a gain or loss and spread it over 15 years or 30 years, that salaries are going to increase, that as actuaries, in the composite, our assumptions work reasonably, we know that. That's why we're actuaries. We fine-tune it and adjust it as it goes along the way. We have the right to change our assumptions.

Now, am I old-fashioned or what? But we went through the 1990s, which was a technologically advanced period. We know that there were developments made. We know that the bubble pulled it back. You hear that hedge funds are the way to go. I listened to Alan Greenspan the other day saying that hedge funds aren't going to get you there. A year ago, you could say it would get you there. Who knows? But as actuaries, we know that a DB plan provides the kind of benefit level employers want. It can provide the kind of flexibility that 401(k) plans can give a participant, without the participant's risk. Most participants along the way to age 50 take their balance every five years and spend it. They're not going to do that with a DB plan. If you want to cash them out, fine. Now I'm hearing that maybe we shouldn't be cashing people out.

At some point, we as a profession do need to take leadership. We do need to try to

offset some of the communication and marketing that's being thrown at us and say, "You know, I may be a nerd and I may shake when I talk, but there's something I have, and that's why I'm an actuary, who can look a little further than what's going to sell this year, and do my job." I'm not going to say any more of this. Believe me, I could.

I know our unfunded liabilities are low now. They're going back to where they were 10 years ago, but I also know that if you fund the way I tell you, you will be able to provide the benefits that you're promising the people. If those people aren't going to be here five years from now, then you deal with them however you feel you need to to bring new employees in. But you will have employees stay with you for 20 or 30 years, get their pension and be able to have a benefit. They will be the jealousy of the neighborhood.

In the state of Louisiana, our people are able to retire in their 50s. State employees? Yes. Be jealous. But while you were out there giving employees 401(k)s who hit the bubble, we were sitting there in a DB plan. We were funding it and we were using balanced portfolios. Yes, we threw our 5 percent or 10 percent into hedge funds and venture capital and real estate, but for the most part it was a balance between equity and bonds. You increase the equity exposure when the market is doing well, and you bring it down when it's not. It's not difficult. What's difficult is putting up with current trends, and if this year the current trend is to do this, try to keep looking ahead.

You're the smart ones. You're the ones with the intelligence, or you wouldn't be actuaries. It would be much easier to be something else, believe me. I think you all believe me. Just keep a straight path. I'm sorry about the 1990s. I'm sorry you didn't sell stocks and bonds, but that's the way it was. I don't think it's going to stay that way. I do agree that the employer and government are going to take more responsibility for the employee. That's a perfect job for us. I hope the profession is able to recoup from the fact that we aren't the most exciting. But we do have a straightforward path, and we're able to come to the forefront when others don't know what to do.

UNIDENTIFIED SPEAKER: I am a big fan of DB plans, so I would like to dispel the notion that financial economic actuaries are anti-DB. In fact, I wrote an article on it and then got two calls about how I was anti-DC plans.

Tom, I agree that the majority, maybe 99 percent, of DB plans are in great shape. Unfortunately, they're not the ones in the noose. If we are really going to be risk managers, we have to worry about the other 1 percent. Even though I'm going to be speaking on investments tomorrow, the real risk problem is not necessarily being in stocks versus bonds. I think of that as a tax arbitrage argument. The real problem is assuming that you're going to get an 8 percent rate of return but not looking at severe conditions. If you get, as Michael pointed out this morning, minus 5 percent one year and 20 percent the next, if you just wait and don't do anything but you keep your funding going and you don't give benefit increases, you'll be fine.

Unfortunately, that's not every plan. Many plans get long contribution holidays. Corporate plans got long contribution holidays. The investment returns for the 10 years ending in 2003 were great compared to actuarial assumptions. The problem was that the actuaries would say, "Oh, but you can get a contribution holiday." You got a contribution holiday for eight years, and then all of a sudden you have to put in 10 years worth of contributions in the end. That is the problem. In the public funds, the problem is the ones that did give big benefit increases. They had great years, gave big benefit increases and then all of a sudden they had crummy returns. You see them in the newspapers.

We tend to think that we have a long-term strategy and if we're going to earn 8 percent over the long term, that our risk diminishes with time. If you get an investment that did minus 20 percent the first year, and then 7 percent the next, 7 percent the next and 7 percent the next, you're compounding now the return. It's reverting to a mean. It's going to be at 7 percent. But unfortunately, in your actuarial calculations, it's a big loss the first year, a loss the second year, a loss the third and a loss the fourth, and it's getting worse and worse with time.

MR. PESKIN: I also want to make a couple of quick comments. First, why am I here? I have no business purpose in talking to a bunch of actuaries. Frankly, it doesn't fit into my business plan. I'm here because being an actuary is the only qualification I have. That's what got me into my career. That's what got me first into the United States. I'm able to live the American Dream, and perhaps foreigners do it more now than Americans. I first joined the consulting firm, Buck Consultants. I became a partner there and consulting actuary for 10 years. Then I went on to Wall Street.

I do agree that actuaries are very smart. However, there are a lot of other very smart people in this world, particularly in the financial industry and in the financial arena. Economists have thought long and hard about many of the same issues with which we wrestle. They've come up with some different answers. We need to pay attention to their answers. Do you think that we can just invest to get an excess return over because we have a long time horizon and can take that premium and therefore say that the cost of something we're doing is lower because of that? That is nonsense. It simply doesn't work. There are lots of reasons why it doesn't work. I don't want to go into that. That's a separate subject all by itself. But it is the height of folly for actuaries to believe that they can price a set of contingent cash flows going out very differently from how the market prices them or would price them. Actuaries are going to look very silly in the end using those kinds of arguments in the full light of day. This topic is going up there. There is no way that this is going away. We're not going to just find that equity markets go back up, we get out of this hole and everything just continues as it was. It's not going to work that way. This issue is going to grow and grow and grow and grow. It's going to be a very, very big problem. We're not getting out of the hole that easily. It's even more in the public sector than it is in the private sector. We need to pay attention to these issues in order to get it right.

I sympathize with and I think he expressed some of the traditional actuaries' feelings and thoughts extremely well. Nevertheless, you need to get to grips with this very important issue. That is the concept of the price of risk and why there's a price of risk, and why you simply cannot take the long view that you're going to get more by taking risk without paying any price for that risk. There's a reason why equities have an equity premium and why they have an excess rate of return.

If everybody thought that over long periods of time equities are going to outperform bonds, that would cause equity prices to rise and the return on equities to go down. There would be no reason for there to be an equity premium. Because there are real, serious risks in equities that nobody knows exactly what they are, there is an equity premium.

MR. KENT: This is why we have three hours for this. I want to say a couple of things. One, I don't think actuaries have been doing anything wrong. What is missing is that sponsors don't always know what we're doing. They don't know where their plan stands relative to market value. If plan sponsors know that, if they know that their actuarial funding target is becoming lower and lower and lower, relative to the market value of their promise, they can act on it.

My own experience has been that when CFOs and pension financial professionals within plan sponsors understand the implications of decisions they're making or of decisions they're not making, they can act appropriately. Eight percent in 1991 was a very conservative assumption when long risk-free bonds were yielding 9 percent. It's a very different prospect today when long risk-free bonds are yielding in the 4s. Again, when companies understand the difference in the strategy they're taking, they can act appropriately.

Now I want to respond to my other speakers here. Sometimes I hear the term characterizing "traditional" actuaries versus "financial economics" actuaries. To be honest with you, I don't know what that means. I like to think of it more as you can either be a complete actuary or an incomplete actuary. A complete actuary does understand the pension actuarial rules and practice. The complete actuary also understands economic concepts, financial economics, but also political, social and behavioral economics. He or she needs to understand corporate finance and business management concepts. He or she needs to understand the real-world constraints that exist in business that cause sponsors to make decisions that might be at odds with some of those economic constructs. The complete actuary understands how decisions get made within an organization and how priorities and objectives might be balanced and is able to communicate in a way that facilitates that communication. I hope that we can step away from being either one kind of actuary or the other. I believe in the financial economic viewpoint, but I think of myself as a traditional actuary. Please don't make me pick a camp.

MR. BRIAN M. SEPTON: My question is directed to Sean McShea. In many ways

you tried to shake some common sense into us. You chided us a little bit for some unrealistic assumptions, in your opinion. One reaction I have is that to a certain extent, having conversations with our clients of understated liabilities is uncomfortable. It's something that in many ways we have a hard time communicating, and, from my perspective, that they have a hard time understanding and accepting. From your perspective, sitting on the other side of the table talking with the clients about their investment strategies, are these messages resonating with the people with whom you're talking, regarding a 45 percent understatement of liabilities? How have the clients with whom you've been working been reacting to these messages?

MR. McSHEA: I'll keep this quick. We have 250 custom liability, and this is Ryan Labs. I have five clients that have economic surpluses. A lot of my corporate clients spend a great deal of their time gaming the system. They are very unsuccessful at that, and they're still planning major strategies. Some of our corporate clients went from 250 percent surplus to 100 percent economic surplus.

I can tell you that with our hospital clients, it's extremely emotional in the cafeteria. When they went to vote DC versus DB, it wasn't even a challenge. No one wanted the DC plan. They're all scared to death about converting from DB to DC. At the same time, the hospital couldn't even do it. But the hospital has no big parent to get some additional cash. This can be very difficult for this client to get back to full funding, even though they had decent surpluses in 1998 and 1999. But they did nothing in terms of risk management, and they did a very poor job of benefit management in terms of giving additional benefits. They think they can give a dollar increase in the front end for direct compensation, as Mike pointed out, but they're only giving 60 cents on the back end because of the mispricing of the liabilities.

When Mike and I went down to Washington, the Taft-Harleys were not supportive of strong funding standards. Central Pension, which works with some of my Taft-Harley clients, came in and took over clients that were badly underfunded, but because they're pricing liabilities at 10 percent, they thought the merger of additional assets. But when you meet with these chief investment officers and you ask them about the liabilities, they say that they just handle the asset side.

The State of New Jersey is reporting like a $21 billion deficit, but if you look under the hood, it's more like $71 billion, which would rank them number one in Wilshire's study. When Wilshire first came out with that study, they were attacked by some of the public fund actuaries and the press and plan sponsors. It's very emotional right now. All the CFOs are being involved in the discussion. I personally do not understand how they're going to get out of the deficit, because it's so huge. Economically, if you look at leverage and you look at a dollar-return concept as opposed to a time-weighted return concept, and you multiply 8 percent on 60 cents in assets, and then a liability return, say, of 8 percent on a dollar, you can see the dollar difference. It's very difficult to see them closing the gap. The only

thing you can hope for is that interest rates rise and the equity market bails them out. You could hold your breath a long time waiting for that to occur.

UNIDENTIFIED SPEAKER: In terms of talking to clients, the only thing worse than going to your clients now and trying to raise the specter of the true value of the promise is waiting until the rules change on accounting or funding and telling them that it's a real number that's going to hit them this year. It's incumbent on actuaries that want to do a good job for their clients to be making sure that the clients understand the value of the promise. Do it now. Do it now before it's hitting their cash flow this year, their income statement or balance sheet this year. Bring that understanding along. It gets back to the whole idea of getting through the denial stage. The sooner we start the communication process, the better off both we and our sponsors will be.

FROM THE FLOOR: I'm happy for the taxpayers of Louisiana that are so blissfully happy right now. I'm one of those very sad, upset taxpayers from the State of New Jersey. Back in the late 1990s, some very professional salespeople from Wall Street came to the State of New Jersey and convinced them that they could save money. "We will sell for you these taxable pension bonds, pre-funding bonds, and pay about 7 percent interest on them. Of course, you'll take the money, deposit it in the New Jersey State pension fund and earn 9 percent on those equities. You'll make money on the arbitrage, and we'll discount the liabilities at 9 percent. Of course, with all this extra money now, you don't have to make any contributions." Alchemy! We've saved money. Instead of having to fund 9 percent obligations, New Jersey has to pay off 7 percent bonds.

Now, seven years later, we're paying off those 7 percent bonds, and we're also funding for those humongous losses that we took from the great investments that were made with those monies. I hope that the taxpayers of Louisiana are a little happier than the ones of New Jersey and that they do better going forward. But I don't know how you can guarantee that.

FROM THE FLOOR: Mike, if I heard you correctly, you talked about equity risk premium. Basically you said that obviously there's risk in equities, the equity risk premium is reimbursing you for that and therefore, that's the cost of the risk. If one believes that, and I interpret from what you said that if the equity risk premium was the cost of risk then there's no benefit to investing in equities because any additional advantage is wiped out by the risk, nobody would invest in equities. Obviously it's not true. So I would say that at best, one would argue that there is extra return from equities and there is a cost of the risk, but clearly there should be some additional incremental return that one would expect over and above the cost of risk. I think it's one of the fallacies of financial economics to say that the full equity risk premium is wiped out by the cost of risk. That's clearly an unwarranted statement.

Some of you might have seen an article I wrote in 1999 for the *Risk and Rewards*

newsletter, which talked about looking at a Black-Scholes option, looking at the difference between pricing a Black-Scholes option by hedging and the insurance pricing of a Black-Scholes option. The hedging price of an option based on a Black-Scholes formula is basically a risk-free price, eliminating any possibility of loss if you were to hedge a strategy against the option. It's very costly. In most cases you cannot insure an option, because it doesn't satisfy the required rules for providing insurance, principally that it doesn't follow the law of large numbers, it's not independent observations and so on and so forth.

But if you could find a risky transaction that could be insured, the price would be much less than the price of removing all the risk. I would argue that the time diversification that you see in large pension plans, by spreading the risks over long periods of time, which many plan sponsors are able to do, does provide the availability of a type of insurance that allows the plan sponsor to absorb risk, therefore, invest in equities and therefore take advantage of the extra risk premium and extra return above that, which you would say they would get from a purely expensive risk-free approach.

MR. PESKIN: The first question is about the equity premium. Yes, equities can be expected to earn more because of the risk. When you initially invest in equities, it would be quite wrong to take that excess expected return that you get into account for pricing what it is you're financing. Larry Bader put it best. Let me try to quote him. He said, "Look, if you're going to buy a car in three years time and you want to invest now so as to buy that car in three years time, how you invest doesn't change the price of the car. However, if you invest in equities, it may make the car more affordable because equities might be fixed to go up. However, you may not be able to purchase the car at all. That's the downside of it. It doesn't change the price of the car."

My argument here is that there's a difference between pricing and what you choose to do as an investment policy. In other words, the pricing should take account of the fact that if you invest in equities, there's a risk premium in equities. If you adjust for that risk, lo and behold, you get back to bond rates, and the price of the liabilities is measured at bond rates, no matter how you invest. You may choose to invest in equities and hope for a higher expected rate of return, and if that expected rate of return emerges or something higher than that emerges, yes, it makes the pension plan more affordable. You have to be able to bear the risk so that if the investment does not pay off, you now have to pay up more.

In a corporate finance framework, there's quite a different issue because you don't just have the pension plan portfolio. The portfolio really consists of the whole corporation and the pension plan, in combination. You get a whole different set of factors coming into how you should invest the pension plan, how you should run the pension plan and where you should take your risks. Those were the earlier comments we were talking about as to why it actually pays to have very heavy bond exposure in the pension plan to match the assets to the liabilities pretty

closely. There are some reasons, which I'm not going to go into, why it does pay to have some risk. Take your risk in the corporation. That's not a portfolio approach to it. It's not saying that equities don't have a higher expected rate of return. It's just that it's better to be invested in the equity of the corporation rather than in everybody else's equity in the pension plan.

So there are two very distinct arguments. The one is a pricing argument. Simply, pricing should be based on bond rates. The price of pension liabilities has nothing to do with how you are going to collateralize and invest against those liabilities. If it was a stand-alone pension plan or portfolio—there are plans like that, particularly in the Netherlands with just the industrial plans, or ATP in Denmark—you may choose to invest quite heavily or to the extent that you're willing to bear the downside risk. In that case, the participants bear the downside risk. Clearly, people will take their views and will think that the equity premium is mispriced, to the extent that anybody can calculate it anyway, and that there's a good opportunity for investing in equity versus bonds. I'm simply arguing against using that in the pricing. That shouldn't be in the pricing. There's nothing to stop you, for instance, in using it in funding policy. There's nothing to say that look, how we should fund the plan should take into account that we expect to get a higher return in equity, in some part of the equity premium. It's a very different question from pricing the liabilities. What is the cost of the benefits? What is the cost of a benefit improvement? That should be based on bond rates. There's a difference between the capital budgeting, the funding decision and the pricing.

The second question had to do with options and the fact that you taking away all risk is extremely expensive. I agree with you. Consequently, we would not argue if, again, it was a stand-alone situation, that you should absolutely completely match on a cash flow basis assets and liabilities. The constraining cost of doing that may be too high compared to taking a small amount of risk. You take a small amount of risk and you get a reasonably good payoff for that risk. But we're not talking about that in the current situation with pension plans. We are 60 percent to 70 percent equity exposure, for which there is no justification at all, especially as the populations have aged. We have plans that used to be all actives 20 years ago with a 70 percent equity exposure, now pretty much all retirees still with a 70 percent equity exposure. The retirees are completely matchable, or 99 percent matchable, with bonds. There just has been insufficient thought given to that investment policy.

UNIDENTIFIED SPEAKER: I would think of it in comparison to the insurance world. In the insurance world, you have a certain liability, and the insurance company completely hedges it with bonds. The insurance company then decides to get a little more aggressive and invest in the stock market. They would not lower their liabilities; they instead actually would put in more reserves. But we have the opposite situation in our pension plans. We go and invest in equities and we think we can lower the liabilities and we're basically lowering the reserves.

FROM THE FLOOR: I would like to comment on one of the points that Mike Peskin made. I think that many of the concepts that you've articulated today do apply to funding, especially if we're talking about termination solvency funding. I believe and hope that the law in the near future will require that to the extent that we do not match assets and liabilities in our funding, there be a margin to cover the risk of adverse deviation.

I perceive a growing consensus that a large part of our problem is inappropriate accounting rules. My question is: What is being done to try to true up the accounting rules? Is there any way that we the actuarial profession can accelerate that process? I am mindful of the notion that some of the problems with the accounting rules are problems that were inserted into the rules at our behest. Now we're in a position where we're saying to forget what we said before because we now want transparency and we want to end smoothing and the rest of it. But all that notwithstanding, is there anything more that we can do to convince the FASB that it's time for a change? It should come rather quickly. This is a problem that should not be permitted to continue.

MR. PESKIN: Bob Herz is the chairman of FASB. He's a proponent of mark-to-market accounting for pensions. However, the board has been very heavily lobbied by corporations to not go to mark-to-market accounting, as well as lobbied by actuarial consulting firms and the actuarial community in general, due to the volatility that would be caused by mark-to-market accounting, not taking into account the fact that the investments could change to take away the volatility.

I spoke to Bob informally and therefore, I need to be a bit cautious. His view was that FASB will probably change. They'll go to mark-to-market accounting, but they probably need a triggering event. I definitely think actuaries can help. The difficulty there is getting the actuaries to agree that they should help. We have to agree that this is the right thing to do. Instead of the lobbying that has been taking place, say the Academy sent a letter to FASB saying that the Academy has thought this through, believes that transparency in the accounting is the right way to go and gave our reasons. I think that would move FASB a lot. They're seeing the actuaries and the actuarial community as a whole as being exactly the same group as the corporate sponsor group. Therefore, they believe that any change that they make is going to get the actuaries in an enemy camp and that they're going to have to deal with corporations and actuaries arguing against it. It would be a major change for actuaries to take that role. I think it would definitely help. The difficult part is getting actuaries to do that.

UNIDENTIFIED SPEAKER: Let me ask the question because I hear the challenge. When the Academy pension committee meets, we have actuaries across the country representing different employers, and if they all felt that way, I would imagine the letter would be written. Of the people in this room, do you think we should push the issue that the accounting rules be mark-to-market? Are people willing to put their hands up and say yes? The question is, should we push that

issue and write that letter? I'm not getting enough hands. How many people think we should not push that issue? Would anybody like to give a reason why? Let's get the mike over there.

FROM THE FLOOR: People were saying earlier today that the accounting rules are opaque, it's a big problem and it causes some of the behavioral issues that you're arguing against. I would submit that the mark-to-market number is out there, that it has been analyzed plenty and that mark-to-market accounting would be a big yawn. The standards under which there would be mark-to-market accounting are pretty obvious, and five years from now they will be out there. I don't see the big deal.

I've made the statement in the earlier session that I think it's all about funding. If you want to change plan sponsors' behavior, you have to do it through funding and cash, not accounting numbers. The accounting numbers are there. I'm not sure everybody agrees, but I think you should consider that viewpoint that accounting is not going to drive behavior.

MR. PESKIN: Note that there were more "yes" votes than "no" votes.

UNIDENTIFIED SPEAKER: I didn't count, and I think that there were more "no" votes than "yes" votes. But we can take another vote.

UNIDENTIFIED SPEAKER: There were more "no responses" than either yes or no.

UNIDENTIFIED SPEAKER: Yes. The question then in funding is that employers are most concerned about predictability. That gets us back into the camp of asking: How do you create predictability? I understand that if you're matching assets to liabilities, you can cure predictability, but as was said, when you're investing in the long term with a diversified portfolio, then the risk premiums get paid on equity investments. But you still get to the funding issue and the cash flow issue. As was said this morning, a critical deciding point for companies is that they want to know how much it's going to cost. They want to know that they can count on it being within a reasonable range from year to year.

There are proposals out there, both legislative and others. But that gets to the question of transparency. Part of it is that there has not been a decisive point that you can have transparency for accounting and valuation purposes and not have to have transparency for funding schemes, cash flow management and predictability. Say that both worlds can exist side-by-side and that's okay. If you can do that, then you have the time value of an equity portfolio so that if an employer wants to take the risk and the funding will kind of—I hate to use this word—smooth the volatility of that investment risk, the employer can manage its cash flow and accept the transparency requirements at the same time.

UNIDENTIFIED SPEAKER: There is one key underlying theme that we need to

draw out here. I think this might be a good time. I think your point is very well-taken that the mark-to-market information is available. It just doesn't flow through the operating income statement at this time. In fact, I think that points to a broader issue that the rules may not matter that much on funding or accounting. If you listen to some of the things that have been talked about today and over the last several years, the points are that understanding the economic liability and the economic implications of choices that sponsors make are what drive decisions. We keep coming back to: Does that mean the rules should be changed? There's nothing that keeps anyone in this room or any of our sponsors from looking at accounting-type numbers on a market basis or funding numbers on a market basis.

One of the confusing things is that we keep using the term "liability" to mean lots of things. When Mike uses the term "liability," he's not talking about the actuarial liability or the ABO or the PBO. He's talking about the market value of an identified cash flow stream, in a market sense. Any first-year MBA student will tell you that you have to understand the market value of a cash flow stream. You have to understand market values and you have to bore through accounting numbers to get at market value. You have to understand timing differences to get at market value. That's not a new concept. That's nothing new in the debate in recent years. Every MBA student in the last 30 years has had that drilled into his or her head. What we need to recognize is that when we say "liabilities," an accounting liability, a PBO for example, is an expensing target. It's not a liability; it's an expensing target. An actuarial liability is not a liability; it's a funding target. Whether the funding target is higher or lower than the economic liability is a corporate finance decision. If you set the funding target below the economic liability, you're borrowing. If you don't match the assets and liabilities, you're further leveraging the corporate balance sheet. There's nothing wrong with leveraging the corporate balance sheet; it's value-neutral. If you have a higher expected return, but that flows through to shareholders, that's value-neutral. Where you are in corporate capital structure between all equities or all bonds—here I'm talking about the company balance sheet—isn't a value-adding decision. It's just changing the balance of risk and return to the various capital holders.

That's true in the pension plan, too. If, under current rules, the actuary of the company with which I'm working chooses to reflect some of that equity premium and use a higher discount rate that lowers the actuarial liability, which is not a liability but is a funding target, that means that they're leveraging. That's it. That's a corporate finance decision. If you talk about it that way to companies, they'll shrug and say, "How else would I look at it?" I've never had a CFO do anything other than to say, "How else could I possibly look at it?"

Forget about the rules. There's enough flexibility in the rules for a company to fund a lot or fund a little. They can fund more than the economic liability today if they want. They can fund a lot less. The key is to get that information in front of the appropriate decision-makers so that they can make smart decisions about how to finance their enterprise.

MR. PESKIN: As you say so well, there's a big difference between the accounting and disclosure. In particular, the less smart investors rely on the accounting. The accounting is magic to them. If the accountant of FASB has signed off on it, that's the right answer. Mainly who you fool by having unclear accounting, even though you may make it transparent in the footnotes, are people who don't know how to read the footnotes or people who simply look at the accounting.

A lot of people have gotten the pricing of pensions wrong. It's not just actuaries. It's actuaries, accountants, regulators and corporate plan sponsors. The funding rules have been a mess. I'll draw the analogy of four drunks around a lamppost, the lamppost of pensions. Each is thinking that they're holding up the light, when in fact they hold up nothing but each other. The important thing for actuaries is not to be the last drunk around that lamppost, because the last drunk around the lamppost is going to be blamed for the whole mess. We have a chance here to get it right. I think we should take it.

FROM THE FLOOR: It's very difficult to make changes to pension plans. They're incredibly difficult boulders to move. As a result, when we work with plan sponsors or when we work with government organizations (or whatever is our audience) to change regulations, when we try to make changes, a lot of the changes we end up making are incremental in nature.

Say we could start over with a blank slate. What kind of things would you envision as being desirable features of pension plans? The answer will vary, obviously, depending on the perspectives of different stakeholders, depending on the environment in which you're setting up the plan and the employer's objectives. But what would some of the overriding themes be that you would see? We've already talked a lot about investments. Maybe you could explore some issues relating to themes around plan design, employee communication, funding, plan governance, risk sharing and things like that. It would be insightful to hear what your ideal world would look like if you had a blank slate.

MR. PESKIN: There is another session on plan design, but we can tackle the rest of it.

UNIDENTIFIED SPEAKER: I'll just make one comment toward the question on plan design. We view the asset/liabilities situation in pensions to look more like an insurance company. Insurance companies have always been liability-sensitive. They seem to understand the concept of economic solvency. We seem to take over these insurance companies more quickly. When they go insolvent or go to close to full funding, they can't write any additional premiums, whereas on the pension side, pension plans can continue to increase their benefits even if they are not economically solvent.

So we view the future as more of an insurance structure. The asset allocation will

look more like assets versus liabilities for insurance. Based on the comment that Mark had made earlier, additional risky assets means you have to put up additional risk-based capital charges. You put more equity in the plan? It doesn't change your economic funding the next day. Risk transfer? Removed. Smoothing on actuarial statutory rates? Removed. I'm not saying that the New York Seven or some of the rules the insurance companies have today are very helpful. The risk-based capital charges—there's still improvement there. But it will look more like an insurance structure with asset allocations flipping from a 70/30 equity to a 30 percent equity exposure and 70 percent bond exposure, with more duration-matching strategies or tactical changes based on what Mike talked about earlier. But it's going to look more like an insurance structure.

What we should be saying in our mind is: How is it that insurance companies are not in the pension business? Is it because we're mispricing our liabilities so grossly that they can never get into it? Because they could never compete with a pro forma ROA in order to run a pension segment.

MR. HAMILTON: I have a sense of discomfort about running them more like insurance companies, because we have been there. It was actually before my time. But if you go back to the 1950s in Canada, most pension plans, or an awful lot of them, were deferred annuities. They were insured; the insurance companies did buy bonds and they matched it all off. It sounded wonderful in theory. It worked out well for the insurance companies. There was only one problem. When inflation picked up in the 1960s and 1970s, it wiped out an entire generation of Canadian retired people. Everybody stood around pointing fingers. The corporations said it was the insurance companies' fault; the insurance companies said it wasn't their fault because they just matched everything off. The only thing everybody agreed on was that those pensioners were pretty darn poor.

I'm not optimistic that if we, for all sorts of sophisticated financial reasons, get back to that design that we're going to find it any more fulfilling this time than we found it the last time. Rather than go there, I think the future is more likely to head toward these Dutch plans that Mike was describing earlier. One quibble I have with them is that if you talk to the people there (at least the academics) they don't describe it as defined benefit. They describe it as collective defined contribution. Everybody fires their money in the pot and they invest it, but the benefit accruals for active members and the indexing for retired members is all tied to fund performance. It's more of a DC plan with members bearing the risk, but it's collectivized in the sense that it's not each individual making his or her own investment decisions and living with the consequences of his or her own investment results. It's collectively, generation by generation. They do that with some sort of disciplined transferring of money between generations.

UNIDENTIFIED SPEAKER: It was mentioned that over a long period of time, we should expect the equities to be able to outperform bonds and that companies are very long-term propositions. Well, if we look at Japan, the Nikkei is about 25

percent of where it was 17 years ago. Interest rates went from 4.5 percent to below 1 percent. I don't know how much longer it will take until it recovers to where it was. How many companies will go out of business and cease functioning during that period? With 17 years and we're down 75 percent, even if they return, say, 12 percent a year, how many years will it take to get back to some reasonable return on the 39,500 Nikkei? During that time, what number of companies will be out of business, and what number of pensioners will have lost their pensions? Can we really count on that for a system for retirement?

UNIDENTIFIED SPEAKER: I don't dispute that there's an equity risk premium. I don't dispute that analysts don't already look through the accounting. We're in a mark-to-market world on an analyst's basis. But I do think that we are giving bad information to the managers of these pension plans. Therefore, they're making bad decisions to take on a lot of risk. Because of that, players, when they want to de-risk, as Mike talked about this morning, have only one option right now. That is to go to a DC plan. If we start providing good information and talk to them about ways of de-risking the DB plan, then we have the chance of keeping them around.

MR. MITCHELL I. SEROTA: I'm glad I don't live in New Jersey. But I do live in Illinois, and the governor of the state of Illinois decided that he's just not going to bother about interest rates and funding liabilities. He's just not going to pay a contribution to the pension plan for the state employees this year, and thereby, he's going to balance the budget. That's another way to deal with funding issues.

My real point is: Where was this group in 1982 when long-term interest rates were 17 percent? I remember the IRS pouncing on people who were using a 5 percent interest rate to shove money into the pension plan, when that was a preposterous rate to be using when long-term interest rates were 16 percent and 17 percent.

If at that time we had converted over to financial economics, there wouldn't be a problem today, would there? I'm suggesting that we are living in an economic cycle. Currently, the Chinese take the trade deficit that we have created by buying Chinese goods, and they in turn buy U.S. Treasuries, and that keeps our interest rate low. If at some point in the future (I don't think it's hypothetical; it's going to happen) they decide to cash in those bonds, interest rates are going to start rising again. Once interest rates start rising again, this conversation will be moot. Financial economics and marking to market will merge with the way we've been pricing and funding pension plans all along. Things will be back to normal, whatever "normal" is or was or will be. Then we'll have another crisis to deal with later. If you can foresee that crisis, let's address that crisis now.

I'm putting my money where my mouth is. I have invested the retirement money of my company's pension plan in a hedge fund that sells basically Treasury bonds. I've not been making money yet, but I certainly intend to do so in the next few years.

MR. PESKIN: The question of which way interest rates are headed is certainly one

that I'd be happy to weigh in on. What I will say, however, is that there are billions, if not trillions, of dollars being bet every day on where interest rates are going. A lot of plan sponsors tended to think interest rates are going up—so did Morgan Stanley. In fact, we've all been wrong. Long interest rates came down.
Where they go from here is still a very tricky conundrum. You can hear arguments on all sides of this. What I would point out to you, without weighing in, is that there is a very real risk of a deflationary, of a Japan-type, scenario. If China or Japan stopped buying our bonds, not only would interest rates go up, but we'd probably get serious stagflation here because our equities would go down as well. While it is not so bad for pensions, it is pretty bad for the corporations that sponsor them. So it doesn't get us anywhere close back to the situation that we were in. There's no cycle there.

I'd point out on your bet that interest rates are going to rise that you are doubling up on an existing bet that you've already got in the pension plan. You are hugely duration-short in your pension plan, if you have a typical investment of 60 percent equities, 40 percent intermediate-duration bonds. If you now bet on top of that that interest rates are going to go up, then if interest rates go down, you have a double loss. You lose on the investment you've just made and also your pension plan gets deeply underfunded, and a recession, which is why interest rates would go down from now, would be a deflationary world, bad for equities as well, so probably would your sponsoring corporation.

UNIDENTIFIED SPEAKER: In the early 1980s when the interest rates were up, there was a lot of discussion about immunization and actually matching assets and liabilities because of the opportunity to do so. What happened to all those great plans? What happened to that system? Where are those immunized portfolios today? From what I see, they've moved off.

UNIDENTIFIED SPEAKER: The liabilities were mispriced in the 1980s as the liabilities are mispriced today, for different reasons. Different people can take advantage of that mispricing.

MR. PESKIN: When New Jersey borrowed money and invested in the stock market essentially what really was being arbitraged were the actuarial assumptions. If the actuarial assumptions are 8.5 percent and you can borrow money at 7 percent, the state wants to do it for budgetary reasons because now suddenly they're only paying 7 percent instead of 8.5 percent, which is what the actuary does. So it's the actuary being arbitraged, because he's setting an artificial rate that has nothing to do with the market. Exactly the same thing happened back in the 1970s. You're talking about interest rates of 16 percent and 17 percent, and the actuary was using 8 percent. So companies were motivated to go out and buy long bonds because they have that liability that was immunized off of the actuarial calculations. The contributions were driven down. Interest rates kept going down. They came down all the way from 1981, and some people would say that they are still going down. When interest rates crossed the 8 percent threshold, whatever the actuarial

assumption threshold was for contributions, companies sold those bonds to invest in something that would cause the actuaries to use higher discount rates, higher expected returns that went into the funding calculations. Once again it's the actuaries that are causing the problem rather than the immunized bond portfolio.

UNIDENTIFIED SPEAKER: To Mitch's point, if the rates go back up, then we will be priced correctly. But that's not to say we won't be mispricing the future again.

UNIDENTIFIED SPEAKER: There's no switch to financial economics. All financial economics means is that you reflect market value in your thinking. That's a truism of the financial world that we've always lived in. There's nothing new; we're not switching. There's no change from not recognizing market value in measurements and decisions that financial managers make to recognizing market value. It has always been required that smart business managers reflect market values in their thinking. That doesn't mean that they have to immunize to match pension assets to pension liabilities. They do need to understand where they're taking risk. They do need to decide if they want to take risk in the pension plan, that that's a conscious decision and not because their actuary used the same assumption that has been used for the last 12 years, that has gone from being 100 basis points below the risk-free rate to being 300 basis points above the risk-free rate. That's such a change in the pricing. If the client doesn't understand what that means to his economic obligation, then he's not understanding his own balance sheet and the economic risks that he's taking. It's a disservice if he's not aware of that. That doesn't mean he has to act on it, but he needs to understand the market value of the promises that he has made. That's common sense.

UNIDENTIFIED SPEAKER: I think it's inappropriate for us to say that our own clients are gaming our assumptions. Realistically, we know it doesn't happen that way. Hopefully, we educate them and they want to be educated about the implications of their decisions. So when they buy fixed income or equity, it's not simply because of the assumptions we use. There are implications that they can see beyond simply a liability and a present value, and they can see that these decisions do play out in terms of risk and reward. I don't think it's fair to indict us because of assumptions we used and asset decisions that were made.

I want to switch to a different point. Most of the financial concepts that are being discussed today have a basic, underlying assumption that the pension promises are absolute. The point I tried to make in the earlier session was that pension promises would be viewed as absolute if the funding rules were mark-to-market on a moment-to-moment basis or year-to-year basis. No one would disagree that the funding promise is an absolute and employers have to deal with it and mitigate the risk the way that it's being promoted here today. If the funding rules change that way, there would be no debate. It would be obvious.

However, when we talk to employer coalitions and large industrial sponsors of pension plans, we find that they totally reject that approach. They reject any

regulations that are based on that approach. When you talk to them about the concepts, I'd say maybe one-third of them understand financial economics and do reject it. Why do they reject it? I'm going to oversimplify, but I think that they believe that pension promise is more like an equity promise. It's less like fixed income and more like equity. If the business is solvent and can afford to pay the pensions, they'll pay them. If the business isn't solvent and they can't afford to pay the pensions, they won't pay them. That's what they're willing to fund, and that's what they're willing to provide. If the employees don't like it, they'll offer a DC, which will give them the same exact arrangement as that. That's what I'm hearing from employers. That's why we're not in immunized portfolios. That's why they're not going to insurance companies and saying, "Take this liability off our books and de-risk our income statements or balance sheets."

MR. HAMILTON: Maybe this is a U.S./Canada difference, but if that's what they think, they've done a remarkably poor job communicating that view of the pension plan. I think that they've been far less than forthright in going to employees and saying, "Hey, this is the way this thing works. If the stock market does badly, we don't feel that we should have to honor these obligations. We should be able to do whatever we need to do to get out from under them."

UNIDENTIFIED SPEAKER: I didn't say "if the stock market does badly." What they're willing to do is pay the benefits over time. If the stock market does poorly and they have to ramp up their contributions, they'll do it if they can afford to do it. But if it's going to drive them into bankruptcy, they'll go into bankruptcy and forfeit those benefit commitments. They don't have an absolute commitment. They have an absolute commitment to the extent that they can afford it. They're not willing to pay extra to de-risk plans.

MR. PESKIN: This is very simply the moral hazard caused by the PBGC. If you didn't have the PBGC as the guarantor to the employees, the employees would kick up a storm if the plan were underfunded and they could lose their pension promises. Employees wouldn't work for a company like that. They would insist on it being funded. It's the PBGC that allows that.

UNIDENTIFIED SPEAKER: I'm not sure that's true. If the employees understood the risk, they would just perceive that there's more risk.

MR. HAMILTON: In Canada we have large jurisdictions without any PBGC, and the employees don't kick up a fuss when their plans are poorly funded. I don't know whether it's ignorance or short-sightedness, but they don't.

MR. PESKIN: If employees cannot negotiate for themselves, then we need to protect the employees by insisting on full funding at all times.

UNIDENTIFIED SPEAKER: I think one of the points is that the employees are effectively negotiating for a benefit that is somewhat secure, but as risky as their

employer, and understand that if their employer is not there, the benefits aren't going to be there either. But they would rather have the heightened promise based on the future prosperity of their employer than to cut back on the promise and get a fully securitized benefit.

MR. PESKIN: To an extent, that may be acceptable. But it's societally dangerous if people can lose all of their benefits just prior to the time and there's no chance of catching up on them. There needs to be some minimal funding requirement, even if we say, "Look, it has to be 50 percent funded at all times. It cannot be below that, and the rest of the employees at risk, no PBGC." We can do that system.

UNIDENTIFIED SPEAKER: I think the system somewhat forces that. I suspect with pension reform it will be more stringent enforcing it. But from what I've seen, it's not going to take it to 100 percent.

MS. KELLEY McKEATING: A little while ago, Ken brought up the high interest rate environment of the early 1980s and asked about how pension plans handled that. In Canada, a lot of plan sponsors at that time annuitized a lot of their obligations. In essence, they ended up backing them by bonds and mortgages, which is what the insurance companies were using. They generated surplus. That, I think, over time led to some of the political risks to which Malcolm was referring earlier. I think the basic problem is that the pension promise is a long-term obligation. When a plan sponsor puts undo emphasis on today's snapshot by looking to withdraw surplus from the pension plan, which leads to the litigation situation, or increasing benefits because you're in a blip in your yields or doing anything else like that, you're losing sight of the fact that your funding mechanism is supposed to be a long-term methodical process. If the actuary and the plan sponsor, one or both of them, can't keep in mind the fact that you have this long-term thing, that's a problem.

The other thing in there is actuarial assumptions. If you're putting undo emphasis on today's economic environment, again, you're putting undo emphasis on the snapshot and losing sight of the long-term. That's the risk. How do we as actuaries and how do plan sponsors get over that hurdle and forget about what the plan looks like today and think about where you're trying to get 50 years from now?

MR. PESKIN: Everybody wants to share losses with future generations. That's the easy one. The difficult one is insuring sharing gains with future generations. It has often been tried but it has never succeeded. There's always some way that some people or politicians find to spend whatever is there. We hear a case of a state being underfunded and still not funding its pension plans. If they were well-funded, to get them to say, "No, this is a savings for future generations," is politically impossible. They will find some way of spending the money, sharing the expenditure by increasing benefits with participants by spreading it across various people. The people who are never at the table to bargain are the future generations. Consequently, all future generations ever get are the shared losses.

They never get the shared gains. That's the problem with that system. That is the actuarial ideal. That is the thought that we had as actuaries as to how it should work. But it doesn't work that way. Furthermore, it can't work that way. It's just politically naïve.

UNIDENTIFIED SPEAKER: Then what should be the enforcing measurement? An accounting measurement over a funding measurement? Will that change the behavior of the employers as it relates to surplus, which they turn around and say should be set aside for future generations?

UNIDENTIFIED SPEAKER: There's a link on the SOA Web site to more information on financial economics. Under there is a UBS report. It talks about the investments. What they say is that the high equity allocation is caused by two things. One is an expectation that the equity risk premium is going to lower your costs. But the more important one is the bias in accounting and, I would say, bias in funding as well. The more you put into equities, the higher your actuarial assumption right now and the higher your expected rate of return for your accounting numbers. If we removed that bias, then the managers of these plans would make better decisions about de-risking their DB plans. They would see the tax advantages to it, the risk reduction and there are numerous other reasons there. Once we get rid of the bias, then the managers of these plans will make good decisions about de-risking their plans. Then we wouldn't have this exodus from DB plans because they're too risky.

UNIDENTIFIED SPEAKER: I'm not going to put anybody on the spot, so I know this is a rhetorical question. I'm not expecting anyone to answer this, including those of us up here as well. There's nothing that requires actuaries to build risk premium into assumptions or require sponsors to do it. If it's not appropriate, how many people are bringing up that point with their clients and making sure that the client understands the economic significance, or the lack of economic significance, to building that into the assumptions?

UNIDENTIFIED SPEAKER: You don't think we're required as actuaries to use the expected rate of return?

UNIDENTIFIED SPEAKER: I think we're required to use an assumption that falls within the best estimate range, which is a wide range and creates enormous latitude. It creates latitude to be systematically aggressive or systematically conservative. I think it's permitted to be systematically conservative within reason and that can actually be prudent. In fact, being systematically conservative within reason operates in a way that you have the potential to build a little bit of cushion over a reasonable funding target. In fact, that's the whole logic of how the administration's proposal is designed on pension funding.

Yes, I think you're required to use the expected ROA. Does that mean that you can use a rate that would produce the same liability measurement as using economic-

type measures? I think the answer is yes. I think you can fund toward the economic liability in today's environment. I think there are companies that recognize that and either do it or choose not to do it, but with the full understanding that they're choosing to defer funding as part of their capital budgeting strategy and decision-making.

UNIDENTIFIED SPEAKER: I had an experience I'd like to share. There's no administration proposal on multi-employer (multi) plans, and the Boehner bill does not change the interest rate rules for the multi-employer plans. I actually have seen a multi this past year move to a more aggressive investment policy, solely for the purpose of inducing the actuary to not reduce the interest rate assumption as much as threatened. That's scary. But that's the tack they took. The actuary wanted to reduce the interest rate assumption; instead they changed investment managers to go out riskier.

The second item is an experience I saw a few years ago, which I think ties into all of this. Go back about three years ago. It's now the first quarter 2002, and we're meeting with a prospective client. We tell them, "You have enough money in your pension plan. With a lot of legacy costs, you can still immunize your portfolio and never have to contribute a penny to the pension plan again for all of your active employees. You can walk away from it on a cash flow basis, but it will hurt you on profit-and-loss (P&L) reporting." We were thrown out of the room by the pension investment manager, who said, "We've never had three down years in a row. You don't know what you're talking about. Get out of here." Seven months later, as they were about to close their year-end September 2002 books with a market cap one-eighth the size of their pension plan, had the Dow, instead of recovering a little from about 7400 (or wherever it bottomed out) and going up a little to 7800, had the Dow instead on September 30, 2002, been at 6500, this company probably would have been in bankruptcy.

UNIDENTIFIED SPEAKER: We're discussing the appropriate assumption. Michael is talking about applying an assumption to accurately measure the liability. We heard something interesting from Sean today, which is that the benchmark that's used for FAS 87, the benchmark that has been put forth as an appropriate benchmark in the discussions of pension reform and that is something like the Moody AA, is an erroneous benchmark and is not a benchmark at all, which is kind of news to me. What is the right benchmark? We're also being told as actuaries that maybe what we've been doing in setting our assumptions is not appropriate. I would turn around and say, "Why is it that we're suddenly hearing that the benchmark that everyone is using is not appropriate either?"

MR. McSHEA: If you take a look at a closed group, current service/current salary-type of projected benefit schedule, you could take that projected benefit schedule, break it down to retired lives and active lives, go to *The Wall Street Journal*, take the spot strip yields and do an economic evaluation in probably about 15 minutes. We're an index factory. If you want us to create a AA index for you, it's done. Go to

our Web site, www.ryanlabs.com. But I think of you as family, and I'm trying to help you. It's very simple to price a liability portfolio (because that's how we view it), to create a custom liability index in your kitchen, by using the spot prices from *The Wall Street Journal* or by taking the spot prices right off our Web site.

If you want to go to the complications of a Citigroup or Ryan Labs AA, look how complicated it is and look what the integrators will have problems with. Number one: we now start with 6,000 bonds in the Lehman Ag or the Salomon BIG. We have to filter it down so we have AA bonds. We now have to take out the puts, calls and sinks. When I look at FASB 87, Paragraph 44, it says, "high-quality for life, non-putable, non-sinkable." That's not a corporate bond. It's not high-quality for life. When I match off the maturity projections of your cash flows with high-quality bonds for life, and expect to be available for life, that translates to "agency" and "Treasury."

But let's suppose we'll just take it as a AA yield curve because it makes you feel better. As an integrator, can you imagine if we get a AA index to run against right now? You'd be asking us to buy 100 percent AAs, and we can't beat an index with AAs. So what's going to happen? Wall Street wins. We're going to have to buy As, less liquid and more volatile, at a time when spreads are really tight. We're going to ride this loss out at the worst possible time and own those securities because you're chasing yield. Think about buying the liabilities on the Treasury yield curve, and allow us to make decisions as an integrator when to buy the liability asset and when to buy the spread product. Right now I'm not all that excited about buying a spread product, especially a less liquid and less credit-worthy spread product. You can make it very simple for yourself, in terms of the mechanics and valuation, by going to a liability strip curve valuation and allowing the integrator, the money manager, to add value, some type of spread, over that liability over time. But it's very difficult to beat a benchmark.

I can tell you, in terms of Sarbanes-Oxley, that we do not have long AA spots. That is theoretical. It's a hypothetical index. It's not real. If you can't buy it, please do not recommend it. Once you create a valuation index, you need to create total returns. A AA total-return benchmark is very difficult for us to calculate. We'd be happy to calculate it and charge you for it. But try to make it easier by looking at a liability index based on Treasury zero spot. It's much simpler and it's much easier to communicate.

FROM THE FLOOR: What you're really recommending is that people should cover their liabilities with matching zero coupon bonds, because even if somebody does go in and keeps some portion equities for the future and just values them at some risk-adjusted rate of return, whatever you're deeming the risk-adjusted rate of return to be, all that does is lower the probability that they'll come up short, but it certainly doesn't eliminate it. At a risk-adjusted rate of return, stocks still have a significant positive probability of underperforming the risk-adjusted rate of return. So aren't you saying that the only thing you really want people to do is just match

with zero coupon bonds, period?

MR. PESKIN: I'll answer that in two ways. They should definitely measure the liabilities in economic costs that way. They should measure it as: What is the cost of defeasing the liabilities? That's the right price.

They may then choose to invest somewhat differently from that to try to get higher returns, recognizing that no matter what they do, the more they go for higher returns, the more they're increasing the potential for an underperformance, either the probability or the size of the underperformance. They need to be able to understand that risk and bear it.

But before you can even get there, you have to measure it properly. You have to measure the liabilities at a defeasance rate. What is required? Jim Moore and I co-authored two papers, one three years ago and one two years ago, where we pushed for the swap curve. I noticed since then that the Netherlands adopted the swap curve in their regulations.

The reason why the swap curve is used is that it is the most liquid. It's what the financial markets are trading massively day in and day out. There's no doubting what the swap curve is; there's no artificiality in it. You can trade it and it's investable, with pretty large numbers. It also goes out much further than the corporate curve goes out. The corporate curve is completely artificial up at the long end. I think the AA corporate curve is a terrible idea. It doesn't work at all. Better than that, though not as good in my view as the swap curve, is to simply use the Treasury curve. If you don't think that you want to fund as tightly as the Treasury curve because you don't think you want to give that degree of security to participants, going to the earlier discussion, you can simply add 100 basis points or 200 basis points—that's a political decision—on to that Treasury yield curve, knowing that you're now funding less than the liabilities.

UNIDENTIFIED SPEAKER: Mike, with a typical duration, what would your actuarial funding assumption be if that's what you adopted?

MR. PESKIN: If the typical duration is about 13 years, it would be wherever the yield curve is now, something like 4.5 percent.

UNIDENTIFIED SPEAKER: If we went to 4.5 percent, do you think we'd be challenged by our actuarial standards?

MR. PESKIN: You said something about actuarial standards.

UNIDENTIFIED SPEAKER: Well, I understand that.

I think what Mike is saying is that when we are doing a valuation, even when we're funding it, if we're not adequately measuring the obligation, then we're not working

toward a solvency equation to have assets sufficient to meet that obligation. Therefore, we're not funding. If we're not funding, then what are we doing?

UNIDENTIFIED SPEAKER: You give plans the choice then. By giving them good information, they have the choice on how much risk they want to take. If they are running a successful core business and want to de-risk their pension plan, they will choose to do that. If they are having an unsuccessful business, they might choose to continue to take the risk in their pension plan.

UNIDENTIFIED SPEAKER: I may be the only one on the panel that's on the frontlines, having to think about how to walk in to your client as the pension actuary and all of a sudden say, "Well, my liability is not really the liability." I think there's a lot that you can do. What I found to be more effective is not to go in with a new hypothetical discount rate to measure the liability or my theoretical market value that I can immunize. It's more like hitting the broad side of a barn. The idea is that there's a big difference between an 8 percent liability that's got an equity risk premium and a 4.5 percent termination liability or a 5 percent ABO for accounting purposes. Have that discussion and show people the liabilities. Show them the actuarial liability, show them the ABO, show them the termination liability, and talk about the concepts. Talk about what is behind those and the fact that the termination liability is actually not a bad approximation of what you would get using the strip curve or whatever. It's something that they can identify. A lot of companies have to do that anyway for reporting to the PBGC. It's not something that you pulled out of an ivory tower to try to sell a new product or anything. It's a real measurement that's used for certain purposes that you can use to educate, to get feedback, to have the conversation with the client and have them acknowledge or dispute or argue with you that they don't agree that they have an unfunded obligation. But the first step is to have that discussion, and you can't have the discussion if you go in, don't open the book and instead just say, "You're fully funded again. Let's go out to lunch."

The first step is getting the information out there and having those conversations. It's not easy to say that the measurement of the funding target is 30 percent or 40 percent below an economic valuation of the liability. But it's important, and it's a lot better to do it now than to do it later. It probably would have been better doing it a couple of years ago. It's all about education right now, regardless of what happens with the rules. Let's not sit around and wait for the rules to change. It's even in your own self-interest, with the way you're going to be viewed by clients, to talk to them now.

MR. PESKIN: This all fits back into the earlier question. What would we do going forward with a clean slate? In some ways I think we can look at it that way. As far as future accruals are concerned, we have a clean slate. I think we have to look differently at future accruals and at the legacy situation. It would be very difficult to take the legacy situation and suddenly mark 4.5 percent, use the funding rules of 4.5 percent. You'd send a whole bunch of companies into Chapter 11.

Going forward, what would we say? We'd say, "If you're going to make a promise, fund it. Keep it funded at all times. Otherwise, if you don't want to do that, don't make the promise. Wait until you can afford to fund it, then make the promise. If you make a promise, fund it. Nobody else should have to meet your promises. Your employees are relying on your promises. Then fund it and keep it funded." That's what we do with future accruals.

You don't need a PBGC for future accruals on that basis, except for fraud and other kinds of risks. The PBGC is insuring an uninsurable event right now. Right now the PBGC is unsustainable. It's just a fiction. It's passing the costs of weak companies on to strong companies or taxpayers.

UNIDENTIFIED SPEAKER: I'd like to take up Sean's invitation for me to comment on his question. Sean's points go back to a Webcast he and I and his colleague Doug Love had last month. If anybody didn't listen to that, I hope they order the tape and listen to it.

The session was on yield curves. Sean's point was that you should use Treasuries to value the FAS 87 liabilities. Why use corporate AAs? There are not enough of them. You can't buy them. My point was that the valuation of liabilities by corporate AAs is strictly a hypothetical structure that's set up by the regulatory authorities, like SEC and FASB. It's an accounting structure, which doesn't necessarily have to be economic reality. It's no different from the financial statement that has the corporate office building at book value, which is certainly not the market value. So it's an accounting reality, which is not necessarily real world.

I point to mutual funds as an example where a similar approach is taken. An equity mutual fund bases its values at the end of the day at the closing stock prices. If there's a mutual fund that has millions of shares of General Motors, they value their net asset value based on the closing price of General Motors, even realizing that if they had tried to sell their shares of General Motors, the closing price would have been completely different. In fact, they probably could not realize that quoted value of the General Motors stock if they needed to liquidate.

So again, there's a structure that's set in place by the regulatory authorities, and I don't see the valuation reference to corporate bonds as any different from just a regulatory structure with which people have to work.

MR. PESKIN: I agree with that. It is a structure. However, if you're going to set up a structure, why not, since it's artificial anyway, make it hedgeable? Why not allow corporations to hedge their funding costs if that's what they want? Why not set one up that is in fact investable in the market? Why not use the swap curve plus 200 basis points, whatever it may be, instead of something that is uninvestable?

UNIDENTIFIED SPEAKER: Do we have the option? Do employers have the

option? The option to do the traditional approach to pension funding that we've been doing or to remove the risk?

UNIDENTIFIED SPEAKER: I think employers have a lot of options. Using the AA as a benchmark is a new idea. Back when FAS 87 was new, people thought of AA and AAA as the upper bound of what you would use for an assumption, and maybe risk-free rates were kind of a lower bound. There was a range in which to operate. An awful lot of companies were using discount rates that were pretty close to a risk-free rate. As rates moved down, companies felt pressure to become more aggressive. They became more aggressive and more aggressive and more aggressive, and then we got a little bit of guidance from the SEC that by "high quality," they meant AA and AAA, not GM in today's environment. They started policing down to the AA as a cap, although that didn't even become a cap for accounting purposes.

It seems to me that it's a more recent phenomenon to be at the AA. When my clients ask me what's normal, I just tell them that if they're at the index or close to the index, then they're right with other sponsors, all of whom have become more aggressive over time. Most of my clients, if they've migrated to that index, are more aggressive than they used to be, just like everyone else is more aggressive. But they need to understand it in those terms. They don't need me telling them that the AA index is a conservative measurement of the liability. It seems to be the threshold of what's permitted. It has become common practice, but that doesn't mean that common practice isn't pushing the accounting rules to the limit.

MR. HAMILTON: In Canada, we have to go a long way before debate even starts about whether you should use AA, federal bond, provincial bond or swap curves. Quebec issued a paper on funding a couple of weeks ago. One of the observations they made in there said, "Here's what happened to long Canada rates between 1990 and 2002." They were down, I think, 520 basis points over 12 years. Then they said, "Here's the average actuarial assumption in a funding valuation." It wasn't down 520 basis points. It wasn't down 320. It wasn't down 120. It was down 20 basis points.

We had market rates down 520. I don't care how you measure them—I suspect you could take swap curve, AA or anything you want—they were all down a ton, and the actuarial assumptions and funding valuations had moved hardly at all. The big debate in Canada isn't about what curve you pick; it's whether you should tie to market interest rates at all. Most Canadian actuaries were told that where the market interest rate is on a particular day is not really of any interest. The important number is on average, where was it in the last 50 years? I think that's insane, but that's what we were taught and that's how we're behaving. We have a long way to go to get from that to something sensible.

MS. EMILY K. KESSLER: You can turn risk into an opportunity here, in that there are a lot of discussions you can have with your plan sponsors about what risks they

are facing. Where you have the advantage over some of the other people they're talking to is that you understand the demographics. You understand the potential for changing withdrawal patterns or changing retirement rates, and what those will have on their cash flows.

Also, people have been asking the question, why are we having this discussion about financial economics and the importance of the pension plan today and not 30 years ago? It's called the global demographics: the aging society, the falling birth rates, the mature plans. There's a lot that has changed in the Western world in the last 30 years that has made the risk of the pension plan to the corporation and to society much higher than it was at the time of ERISA. It was somewhat predictable, because we knew people were going to age. We have had some longevity increases that we weren't expecting. But you have a completely different demographic situation that is guiding how people are looking at things and thinking about things.

So when you're talking to people about some of this, you can also put it in some demographic context and talk about some of the demographic risk that's going on. We haven't talked about it a lot today; hopefully, we'll talk about it a little more. But I think it's a key piece to the puzzle to understand, first of all, what's driving some of the economics, but also how we want to think about things going forward.