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FUNDING CHALLENGE: KEEPING DEFINED BENEFIT PENSION PLANS AFLOAT

HEARING

BEFORE THE

COMMITTEE ON FINANCE
UNITED STATES SENATE

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

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TUESDAY, MARCH 11, 2003

U.S. SENATE,
COMMITTEE ON FINANCE,
Washington, DC.

The hearing was convened, pursuant to notice, at 10:08 a.m., in room 215, Dirksen Senate Office Building, Hon. Charles E. Grassley (chairman of the committee) presiding.

Also present: Senators Baucus, Rockefeller, and Bingaman.

OPENING STATEMENT OF HON. CHARLES E. GRASSLEY, A U.S. SENATOR FROM IOWA, CHAIRMAN, COMMITTEE ON FINANCE

The CHAIRMAN. Good morning. I welcome everybody who is here to the committee hearing. This hearing is on defined benefit pension plans and the rules that we use to fund them. This is our first pension hearing for this Congress.

Before I proceed, I welcome our witnesses from the administration and from plan sponsor communities. I am sorry that the Treasury Department was not able to be with us today, and I look forward to hearing from the person who was going to represent the Department, Mr. Fisher, at the earliest convenience.

I would remind Mr. Fisher and anybody else with the administration that is up for Senate confirmation, that we regularly ask committee nominees three questions, of which the third one is, "Do you agree, without reservation, to respond to any reasonable summons to appear and testify before any duly constituted committee of the Congress, if you are confirmed?" Mr. Fisher was confirmed, he was invited here, and he is not here.

I would also like to note that Captain Schuler was the only witness who provided his testimony, not only on time, but early. Maybe the rules of the committee on when testimony is supposed to be submitted does not mean much to anybody, but it means an awful lot to Senator Baucus and me. We would appreciate it if you would get your testimony in according to the rules of the committee.

We are here today to discuss what is the proper measure to value liabilities of pension plans. The statutory rate is the 30-year Treasury rate, but in October, 2001 the Treasury Department discontinued issuing these bonds, at the same time interest rates on the bond was at a 40-year low. While the Treasury Department is still calculating the yield on 30-year Treasury bonds, the number is becoming more and more soft.

In the Economic Stimulus Bill of 2002, Congress granted interest rate relief to plans for 2002 and 2003. We are quickly running out of 2003, obviously, and plans are running out of relief.

This is not to say that plans are fully funded. While some are well funded, others are not. The newspapers are full of stories about underfunded plans too often.

In the past 3 years, the Pension Benefit Guaranty Corporation has taken over the pension plans of almost the entire U.S. steel industry. The PBGC already is holding the pension plans of many airlines, when earlier this month the Bankruptcy Court advised that they could take over the U.S. Airway Pilots plan.

The unfunded liability remaining in airline pension plans is a staggering $18 billion. The PBGC is currently $3.6 billion in deficit. Some critics argue that the agency is swimming in money. If they take over what is left of the steel industry pension plans and the pension debt of the rest of the airlines, they obviously will not be swimming.

Alternatively, others would argue that the PBGC is barely treading water now, and urgently needs a life preserver. In the past, I have been a critic of the PBGC, but this agency is the backstop to failed funding promises in our defined benefit pension plan system.

What happens to this tiny agency is critical to millions of American retirees whose pension benefits were not there for them when they were ready to retire. Therefore, I hope none of our witnesses will make light of the mission of this agency.

Balancing the need to have fully funded pension plans for all Americans, while the need to encouraging defined benefit pensions is always high on Congress' list.

There are activists who, for whatever reason, do not believe that defined benefit pensions are best for Americans. Now, as you know, there are others who simply disapprove of one type of defined benefit arrangement, such as hybrid plans. But a pension is a wonderful social tool because it provides every retiree with the option for a lifetime payout of their benefit.

Nowadays, a minority of workers have a pension. In 1987, there were well over 111,000 defined benefit pensions in this Nation. Today, just 15 years later, there are barely 30,000 plans remaining. This decline in the number of defined benefit pension plans is bad for Americans.

The 401(k) account is not required to pay out in an annuity form, and I have often thought that one serious illness in a worker can have their entire retirement savings wiped out.

If workers have no defined benefit pension plans and they wipe out their 401(k) savings, then of course they only have Social Security to depend upon. The long-term outlook for Social Security is for long-term deficits beginning once the baby boomers start to retire, so we ought to be looking at ways to encourage sponsorship of defined benefit pension plans.

Funding rules that are too harsh will not encourage defined benefit pension plans, but funding rules should not allow sponsors to manipulate the system and make pension promises that they cannot deliver on, or foist those promises on the PBGC and on those solvent employers who pay premiums into that system. This does

not provide the protection necessary for workers to have faith in their respective plans.

So please bear in mind with us that this is all a balancing act. We must encourage employers to keep these plans, but not at the expense of workers and their faith in the defined benefit pension plan system.[1]

Senator Baucus?

OPENING STATEMENT OF HON. MAX BAUCUS, A U.S. SENATOR FROM MONTANA

Senator BAUCUS. Thank you very much, Mr. Chairman. I am also a bit concerned that one of the principal witnesses that we had asked to come to testify before us, Mr. Peter Fisher, at the last minute declined.

Mr. Chairman, if this committee and this Congress is going to do its work, it has to have the advice and the views of administration officials, particularly on a topic like this. I think both the Treasury Department and Department of Labor have very serious concerns with, and are deeply involved with, pension issues.

I think it is almost an affront to this Congress and to the committee for the administration to, at the end, just pull out. I do not know the reasons. We were given no reasons.

This committee understands that witnesses sometimes have to reschedule because of scheduling conflicts. That appears not to be the case this time. In fact, there was no reason given whatsoever.

One can only surmise that perhaps Mr. Fisher was asked not to testify. My guess is, it was not his decision, it was somebody in the White House, because of a fear that some members of this committee may ask some questions about various issues, debt limit issues, for example, or budget issues, deficit issues, that might be a little bit embarrassing to the administration.

Well, my answer to that is, if that is the reason for not testifying, is to recall Harry Truman's dictum: if you cannot stand the heat, you just get out of the kitchen.

I mean, those of us who run for these offices and seek the public trust have an obligation to stand up and answer questions that are asked of us in public service. Mr. Fisher did, under oath, say that he would appear if reasonably asked to appear. Well, apparently he seems not to be honoring that oath.

Now, my guess is that it is not Mr. Fisher's call, that, again, somebody in the White House told Mr. Fisher not to come, and it is unfortunate, to say the least.

I might say, Mr. Chairman, this is a practice we cannot let continue. I do not know what the solution is. I can think of many different solutions. I do not know which one is the best to deal with this problem, but we cannot let this continue.

I know I speak for you when I say we will find a reasonable way that encourages Treasury officials, when reasonably asked, to come and testify before us, as is the case today, and particularly when we are dealing with pension issues.

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[1] For more information on this subject, *see also*, "Present Law and Background Relating To Employer-Sponsored Defined Benefit Plans and the Financial Position of the Pension Benefit Guaranty Corporation ('PBGC')," Joint Committee on Taxation Staff Report (JCX–16–03), March 10, 2003.

The CHAIRMAN. I fully associate myself with your remarks, and only claim in this particular case that I found out so late last night, that I did not feel I could do much about it.

Senator BAUCUS. Which often is the case. That is not against you, it is just what they often do.

The CHAIRMAN. I will try to stay on top of that so that we have full cooperation of the administration.

Senator BAUCUS. Thank you, Mr. Chairman.

The CHAIRMAN. If I were not a Republican, it would not be so embarrassing, but it is embarrassing.

Senator BAUCUS. Well, it is embarrassing to the committee.

The CHAIRMAN. Yes, it is.

Senator BAUCUS. I mean, it should be an embarrassment to Mr. Fisher, and it should be an embarrassment to the administration, frankly.

Mr. Chairman, today's hearing is focused on the difficult balances associated with funding defined benefit pension plans. I must say, these issues are similar to the issues surrounding the Social Security system.

That is, we need to make sure that the funding is in the system so Social Security recipients are not denied their benefits, so the benefits promised for the future are the benefits paid in the future.

At the same time, we should not require unwarranted excess payments to be made into the system. We need to ensure that companies and workers have money today to make investments today.

Enron, WorldCom, and other similar meltdowns illustrate in very graphic terms the risks associated with defined contribution plans such as 401(k)s, and especially with the even higher risks of 401(k) plans that are not carefully diversified.

However, the focus on 401(k) plans has put defined benefit plans in the spotlight again. While a worker in a defined benefit plan may not get the upside potential of a 401(k) plan in a bull market, they also should not have to be afraid of the bear market, that is, a weak economy.

Our funding rules, along with the insurance guarantee through the Pension Benefit Guaranty Corporation, are designed to ensure that no one in a defined benefit plan will ever be hit with an empty nest egg. The worker may not get everything she was expecting at retirement, but she should not be left penniless, either.

The PBGC's insurance program should provide this guarantee, but the PBGC's guarantees are only as good as the assets that are backing them. That means if the plans are not adequately funded at the same time, the PBGC is not strong, then the guarantees given to the workers are eroded.

As a result, workers get less than they were promised and other companies find themselves paying higher premiums to make up the shortfall of the PBGC funds. Everything is relative, as we will hear from our witnesses today.

A guarantee of $20,000 a year to live on after retirement may sound pretty good, that is, unless you earned $100,000 during your decades of work. A company that has worked hard to fully fund its pension plan could also pay a price if others are not so prudent or so lucky, so they drive the cost of premiums up for everyone.

Funding defined benefit plans is a careful balancing act. First, if we allow too little money to be contributed, then workers run the risk of losing some of the benefits they have come to rely on. On the other hand, require too much money to be contributed, and companies will not even offer the plans because of the costs.

Third, if you require that money be contributed when a company is already struggling financially, you risk pushing the company over the cliff into bankruptcy.

Clearly, there are no easy answers. I thank you, Mr. Chairman, for holding this hearing. You convened it as a result of the crisis in the airline industry, an industry where companies are still reeling from the combination of the terrorist attack on September 11th and the weak economy.

Nonetheless, responding to funding issues on a piecemeal basis and industry-by-industry basis, I believe, does not work. Providing relief to one industry without dealing with the bigger picture of our funding structure itself could well start a long line of dominoes.

The airline industry is not the only industry struggling in this economy. Quite frankly, it is hard to give relief to one industry without giving relief to all. But, at the same time, the more companies that are allowed to postpone funding their plans results in more workers who are placed at risk.

We need to find the right balance between risk and reward if the defined benefit system is to stay strong and vital. It may take some time to find that balance, but I believe it will be time well spent. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator Baucus.

I have a statement for Senator Santorum that will be put in the record, without objection. The record will be left open for the rest of the day for other Senators that want to submit statements or questions for answer in writing.

I can say to the present witness, as well as the next panel of witnesses, that if you get questions in writing, we would appreciate a response in 2 weeks.

[The prepared statement of Senator Santorum appears in the appendix.]

The CHAIRMAN. I now go to Mr. Kandarian, who is the executive director of the PBGC here in Washington, DC. Would you proceed in your statement? Your long statement will be put in the record. Thank you. Proceed with your summation.

STATEMENT OF STEVEN KANDARIAN, EXECUTIVE DIRECTOR, PENSION BENEFIT GUARANTY CORPORATION (PBGC), WASHINGTON, DC

Mr. KANDARIAN. Mr. Chairman, Senator Baucus, good morning. I am Steve Kandarian, executive director of the Pension Benefit Guaranty Corporation. I want to thank you for holding this timely hearing.

Last year, PBGC's single employer insurance program went from a surplus of $7.7 billion to a deficit of $3.6 billion. The $11.3 billion loss is five times larger than any previous loss in the program's 28-year history.

In addition, we estimate that total pension underfunding of single employer plans now exceeds $300 billion, by far the largest shortfall ever recorded.

While the PBGC is a Federal Government corporation, it receives no taxpayer revenues and is not backed by the full faith and credit of the U.S. Government.

When PBGC takes over underfunded pension plans, it is premium payers, other companies that sponsor defined benefit plans, who bear the cost. Financially healthy companies with well-funded pension plans end up subsidizing financially weak companies with chronically underfunded plans.

If this subsidy becomes too great, strong companies may choose to leave the system, subjecting the insurance program to adverse selection.

During the recession of the early 1990's, PBGC experienced what was then the largest claims in its history, $600 million for Eastern Airlines and $800 million for Pan Am.

Those claims pale next to our recent losses, $1.3 billion for National Steel, $1.9 billion for LTV Steel, and $3.7 billion for Bethlehem Steel. Claims for fiscal year 2002 exceed the sum of all claims since the agency's inception in 1974.

Recent pension claims have skyrocketed, while PBGC premiums have remained flat, at about $800 million a year. It would take about 12 years of premiums to cover the claims for fiscal year 2002 alone.

But raising premiums high enough to cover the size of losses now being incurred could prove counterproductive, driving financially strong companies out of the defined benefit system.

The worst may not be over. In plans sponsored by companies with below investment-grade credit ratings, our exposure to pension underfunding has more than tripled, from $11 billion to $35 billion. About half of this $35 billion is in the troubled steel and airline industries.

The current $3.6 billion deficit is the largest in our history. Nevertheless, it does not create an immediate liquidity problem for the agency. We will be able to continue paying benefits for a number of years.

Some have argued that because PBGC is not in any immediate danger of running out of cash, there is no need to address the issue of pension underfunding. This view is misguided.

Congress heard the same argument in 1987, and again in 1994, when it strengthened pension security. Without those reforms, workers in the pension insurance program would be in even worse shape today.

Mr. Chairman, we believe there are three options for dealing with the challenges facing the defined benefit system. First, we could do nothing and hope the system will self-correct. This approach risks putting off today's problems to the next generation.

Second, Congress can enact a large, across-the-board premium increase, a change that seems unfair to companies with well-funded plans that are already subsidizing the system. Third, we could look at how to get underfunded pension plans adequately funded over a reasonable period of time.

The PBGC and the Departments of Labor, Treasury, and Commerce are looking at the pension funding rules. Under current rules, funding is not high enough for the plans of companies with the greatest risk of termination. The funding rules do not require many of these companies to make annual cash contributions to their plans.

In addition, benefits can be increased with little new funding, even if the plan is only 60 percent funded. Moreover, in certain industries, including steel, PBGC is exposed to liability for shut-down benefits that were never funded by the employer, and for which no specific premium was charged.

Another concern is the need for better disclosure. The value of plan assets and liabilities is not transparent to workers, retirees, investors, and creditors. The most current information regarding funded status of plans is available to PBGC, but not the public.

A final concern is the financial integrity of the pension insurance program. One issue is whether a more risk-based premium structure would be preferable to the current system. In general, however, well-funded plans represent a better solution for participants and the pension insurance program than any premium changes we could make.

It is important to note that the existence of the pension insurance program creates the risk of moral hazard. Financially troubled companies are tempted to defer the funding of their pension obligations and pass the cost of underfunded plans to responsible companies that have adequately funded their plans.

We should make sure that the incentives in the system are changed to prevent this from happening. We are working to find ways to improve pension security for workers and retirees by putting the voluntary defined benefit system on a sound financial footing.

Defined benefit plans are an important source of retirement income for workers. PBGC insurance protects those benefits, but there are limits to the guarantee. To prevent workers from suffering significant benefit cut-backs when their plans are terminated, we must ensure that companies adequately fund their plans.

Thank you, Mr. Chairman, for inviting me to testify this morning. I will be happy to answer your questions.

[The prepared statement of Mr. Kandarian appears in the appendix.]

The CHAIRMAN. Thank you. We will have five-minute rounds.

The PBGC now has this large deficit, as you pointed out. Can you still pay benefits, and for how long can you continue to pay benefits?

Mr. KANDARIAN. Senator, we can pay benefits for a number of years to come. It is difficult to say exactly how many years. The reason is, it is a moving target. So depending upon what happens, for example, this year, that number could change pretty dramatically either up or down.

What I mean by that, is not only the number of claims that come in, but also the size of those claims. One of the biggest concerns to us is the airline industry, which you noted has significant underfunding today and is in distress. When pension payments must be made is also important. So, for example, when we terminate a pen-

sion plan, we get these assets today. We have that cash on hand today. On the one hand, the pension promises may already be running for retirees, but they are a number of years away for people who are young workers.

So, depending upon how young your workforce is or not, the number of years is unclear. But the important factor, I think, to take into account, is that some day this agency will run out of money if the size of these underfunded plans that have been coming to us recently continues, given current premium levels.

The CHAIRMAN. If Congress were to adopt, as some have asked Congress to do, the corporate bond rate as a replacement for the 30-year treasuries, what effect would that have on plan funding and on, particularly, the premium income of your agency?

Mr. KANDARIAN. If Congress simply adopted the long-term aggregate corporate bond rate with no other changes to the current funding system that would reduce the level of funding to these plans. But it could now adopt the long-term corporate bond rate and make some adjustments. For example, it could take out some of the smoothing factors. It could change some of the funding rules. It could make other adjustments to the program that could offset the reduction in funding that would result from using a corporate bond rate which is a higher interest rate than the Treasury rate, which of course is the lowest interest rate, the risk-free rate.

The CHAIRMAN. Companies have told those of us in Congress, and publicized it well themselves, that funding rules do not allow them to make large enough pension contributions in good economic times. Do you think that the current funding rules are responsible for limiting pension contributions?

Mr. KANDARIAN. Well, for some companies it may be, but for most companies, based upon a survey we did covering the late 1990's, that is not the case. The survey that we conducted for the years 1996, 1998, and 2000, during the good years of the stock market when companies were making large profits and perhaps had more access to capital to fund their plans, found that only about 20 percent of the companies in that period of time that have 100 participants or more actually went up to the maximum funding limits that are in the law currently. So, only 20 percent really were maxxed out, according to the survey that we did.

However, I do not think we should foreclose that possibility. It is something we are studying. We should certainly look at providing more flexibility and finding ways to enable companies to fund during the good years and not be in a bind during the lean years in terms of making up for the shortfall.

The CHAIRMAN. I think you have suggested, have you not, stronger funding rules for companies with chronically underfunded plans. Can those companies, in your judgment, afford to make greater plan contributions, because they also tend to be companies that are cash starved?

Mr. KANDARIAN. There are certainly trade-offs, as you point out. I think that we can look at transition rules to give companies some period of time to plan for the future. And if you put a goalpost some number of years out there for companies to see and know what they are striving toward, they can make plans. They can ad-

just their pension promises going forward to be able to fund the promises they have already made.

So sometimes companies, especially where there are collective bargaining agreements involved, continue to make ever-larger pension promises and have great difficulty funding even the ones they have already made.

The CHAIRMAN. Could you give us your judgment how come so many plans go so underfunded so quickly?

Mr. KANDARIAN. There are a number of factors, but probably the most important ones relate to how liabilities are calculated and the way plans invest their assets.

Liabilities are calculated based upon interest rates. It is different for both funding purposes and termination purposes, but, still, it is interest rates. The lower the interest rate, the higher the liability, just like a bond.

So as interest rates have come down in the last few years, those liabilities have grown dramatically. At the same time, the assets that most companies have invested in with their pension trust are oftentimes 50 percent or more in the stock market.

Those assets have come down at the same time the liabilities have gone up, and the mismatch of assets and liabilities has resulted in the volatility you have seen in the last few years.

The CHAIRMAN. Thank you.

Senator Baucus?

Senator BAUCUS. Thank you, Mr. Chairman.

The question is, where is, sort of, the cliff? That is, there are fewer plans, but the workforce apparently covered by the plans has increased. Is that correct? There are fewer defined benefit plans over time, but the number of people covered has increased.

Mr. KANDARIAN. The number of people covered may be up slightly. It is pretty flat, I think, as a way of characterizing it, largely because most of the plans terminated were small plans, under 100 participants.

Senator BAUCUS. Have you explored ways to try to reinvigorate participation in defined benefit plans?

Mr. KANDARIAN. We have. I think, for the larger, more mature companies, most of them have not dropped their plans, at least not voluntarily. Some have because of inability to afford those plans, and oftentimes through the bankruptcy process.

The smaller companies have chosen to exit the system when they had the ability to do so, meaning they had plans that were well-funded, you could buy annuities in the private market, and they exited the system and oftentimes offered defined contribution plans.

I think smaller companies, in particular, are concerned about the cost of the system, the paperwork involved, a number of these factors. We did propose some legislation which was passed in the House the last year or two, but was not ultimately adopted by Congress due to issues of germaneness.

Senator BAUCUS. But what is to prevent the trend from continuing? That is, fewer companies participating. You mentioned smaller ones dropping out. What is to prevent that from continuing?

Mr. KANDARIAN. In terms of small companies, or large, or across the board?

Senator BAUCUS. Across the board, but I suppose mostly smaller dropping out, as you were saying.

Mr. KANDARIAN. Well, some of the proposals we put forward, I think, could be helpful in making the system less onerous for the small companies. As to the larger companies, I think it really gets to the issue of whether employees and workers, highly value these pension promises.

I think, in the late 1990's, when the stock market was in a bubble, people looked to their 401(k)s or just their simple direct investments in the stock market, and valued those kinds of approaches to retirement more than traditional pension plans. That may be reversing today, as people have seen the consequences of that.

Senator BAUCUS. Any evidence of reversal? There is no evidence of reversal.

Mr. KANDARIAN. Only anecdotal. We have no studies we have done or anything that I can point to that would scientifically suggest that things are swinging back. But it would not surprise me if workers would tell their companies or managements of these companies that, "We value these benefits. We would like these benefits. Please retain them, or please institute them."

Senator BAUCUS. When do you reach the point where you have kind of lost the cushion? That is, where there are so many plans dropped, that you do not have the assets. Where is that point?

Mr. KANDARIAN. There are probably a couple of factors. One is simply the size of claims we take into the agency. I think that the key there, Senator, is that the premium structure has been relatively flat for about a decade, so the number of dollars we take into the agency has been level for about 10 years.

The size of the claims in this economic slump now, is growing fairly dramatically from the previous slump in the early 1990's. It is because these plans are getting larger, they are more generous, there are more retirees, there are more people in the plans in these large companies.

If the level of funding in those plans does not change, then a 50 percent underfunded plan today results in a much larger claim to us than a 50 percent underfunded claim in 1991, which is what I was trying to point to in my oral testimony. The size of those claims against the agency have gone from the hundreds of millions to the billions, but the premiums are flat.

Now, I do not think going to premiums, in the first instance, is the right way to approach a fix. The right way to approach a fix is to get those funded ratios up so plans come into us when they do in economic slumps 10 or 20 percent underfunded, not 50, 60, or 70 percent underfunded. That is the correct way, I believe, to fix the system.

Senator BAUCUS. But how can you assure that, that they come in at the lower percent underfunded?

Mr. KANDARIAN. You would have to address the funding rules that exist today. That is something that our task force is working on currently.

Senator BAUCUS. When do you think you will have an answer, a proposal?

Mr. KANDARIAN. I do not have a specific date, but I can assure you, we are working very hard to pull together a proposal to present.

Senator BAUCUS. Can you give us a rough estimate? Is it going to take a year? Ten years?

Mr. KANDARIAN. I hope it occurs in the next number of months, but certainly not years.

Senator BAUCUS. Good. So we can look forward to hearing from you in, what, 6 months, to be fair? Is that fair?

Mr. KANDARIAN. I think some of this will result from both our work with the administration and timing in terms of when the administration rolls out different economic packages for consideration.

Senator BAUCUS. What did we learn from the LTV matter, avoiding a strong word? You know, there were a lot of pay-outs there.

Mr. KANDARIAN. There were. The company did have a highly underfunded plan. It was only about 50 percent funded. It was a company that went through very difficult times in the 1980's. It tried to terminate its plans back then. We restored those plans and eventually took them back in a decade later.

I think it goes to the same issue we have been talking about, which is making sure that pension promises that are made are pension promises that are funded and kept. If these firms do end up liquidating, we hope that the level of underfunding, again, is much lower, that is, that the plans are much better funded when they come into the agency.

We can certainly handle 10 or 20 percent underfunding, but 50, 60, 70 percent underfunding of very large pension plans will overwhelm the system at some point.

Senator BAUCUS. My time is up, Mr. Chairman.

The CHAIRMAN. Thank you. I am going to submit questions for answer in writing. If you have got any more questions, just go ahead now.

Senator BAUCUS. Just a couple more. That is, if you could separate the short-term relief, say some of the airlines ask you for short-term relief compared with longer term, what is in the category of short-term and what is in the category of long-term here?

Mr. KANDARIAN. I think the key on that issue really relates to this 30-year Treasury replacement issue. What I hope we do not do is select a rate that is intended to provide funding relief. It should be the best measure of those liabilities to provide transparency, to provide an accurate measure of these liabilities.

Now, if funding relief is considered desirable in the near term for considerations of where we are in the economy, that should be addressed separately on some transitional basis.

But, again, putting the goal post out there some number of years—not too far out—to get these plans better funded, but let us not use the replacement for Treasuries as a way to provide short-term funding relief, because all we will do is lock in the underfunding that ultimately will come back and haunt us in years to come.

Senator BAUCUS. Long term?

Mr. KANDARIAN. Long term, we have to tighten up the funding rules.

Senator BAUCUS. Are you going to come up with separate recommendations for short term and long term?

Mr. KANDARIAN. Yes. Yes, we will. Again, it is the Departments of Treasury, Labor, Commerce, PBGC, and others within the administration who are working on this task force to address these issues.

Senator BAUCUS. And we will get those recommendations in the timeframe that we discussed?

Mr. KANDARIAN. Yes. Yes.

Senator BAUCUS. This hearing was called basically because of U.S. Air. Senator Santorum, inspector. What should we do with U.S. Airways? Say, short term. What is the short-term solution for U.S. Airways?

Mr. KANDARIAN. We were asked at the agency to consider doing something that is referred to as "restoration funding," taking in the pension plans of U.S. Airways and then giving them right back to the company with a different funding schedule, essentially providing 30 years to fund the unfunded amounts that exist today as opposed to what current law provides, which is closer to 5, 6, or 7 years.

We rejected that on legal grounds, saying the act did not provide that power to us, that it was the power of Congress to set the funding rules, not the agency's Executive Director, essentially, which was what was being requested.

The second thing we said was that we would not support a change of law to provide that power to the agency to make those kinds of calls. My concern there was that you then start dealing with the situations on a case-by-case basis. I would be concerned about a slippery slope in providing this kind of relief in one case, like U.S. Airways, without providing it to other airlines who have similar problems of their own, or other industries that have problems right now.

So I think any sort of relief that may be desirable should be considered on a much grander scale and scheme, not on a case-by-case basis made by the agency itself.

Senator BAUCUS. Where is that grander scheme, or under what grander scheme? How could you define it? Are you talking about a different forum? Are you talking about a different proposal? What do you mean?

Mr. KANDARIAN. Yes. I think that the approach that Congress has taken, and was supported by the administration, was setting up the ATSB to provide loan guarantees to the airline industry, and grants, in some cases. That kind of relief has been provided to U.S. Airways.

Senator BAUCUS. And so you prefer that route to a PBGC fix?

Mr. KANDARIAN. I think that is the better public policy approach when you consider, if society thinks there should be some relief, then society is paying for it through the Federal Government, the taxpayer revenues.

On the other hand, if you say, let us give specific companies relief on a case-by-case basis through PBGC, you are directing the cost of that, potentially, to the rate payers in the defined benefit world, which is a segment of society. I think that is a less supportable approach.

Senator BAUCUS. So your answer would be the same with respect to any industry request for relief from PBGC.

Mr. KANDARIAN. Yes. Yes. And I think one of the charts we showed earlier, the pie chart, indicates the size of the cross subsidy going on in the system today. I think that is just too large.

Senator BAUCUS. Could you explain that chart again, please?

Mr. KANDARIAN. Sure. This chart shows the claims against the insurance system since inception, since 1974. So of all the claims that came into the insurance system, what percent was steel? The answer is 58 percent. Airlines, 13 percent. That does not include the currently bankrupt airlines that we are aware of. In all, those are 29 percent.

Now, steel represents less than 3 percent of the workforce that we insured at its peak in 1974. Today, it is less than 2 percent. Yet, the claims are approximately 58 percent. Airlines represent less than 2 percent of workers but the claims represent about 13 percent. We are talking about today's airline claims, again, before the more recent bankruptcies.

So, while there are going to be cross-subsidies in the system, I am not saying we should not have some of that. The question is, to what extent can the system support that kind of disproportionality and still be viewed as a fair system, and be viewed by strong companies as a system they want to be a part of?

Senator BAUCUS. So how do we deal with that cross-subsidy, and that magnitude of cross-subsidy? Is that magnitude going to, in your judgment, continue, all things being equal, or do you suggest some changes to minimize or to reduce that cross-subsidy?

Mr. KANDARIAN. There is not much we can do, obviously, retrospectively. But prospectively, if we get these plans better funded, again, up to much higher levels of funding, so if there is a termination—and we are certainly here for that purpose—they are not coming in 50, 60, 70 percent underfunded, as many of these did.

Senator BAUCUS. And that would require what?

Mr. KANDARIAN. Legislative changes to the funding rules.

Senator BAUCUS. Right. To someone who is kind of uninitiated in this subject, what would the statutes provide?

Mr. KANDARIAN. Senator, if I could just defer on that one. Those are a number of things we are considering and studying within the administration, and as of now we do not have a plan that we can put forward. I am trying to be careful not to put forward something that, at this point in time, really is not a completed package that has been agreed to.

Senator BAUCUS. Right. Even though it is not complete, what direction might it tend toward?

Mr. KANDARIAN. It would result in companies better funding these plans through looking at the promises they have made, making sure they fund those promises over some reasonably short period of time, especially before they start making much larger promises in the future.

Senator BAUCUS. Well, Mr. Kandarian, I want to thank you very much for participating and for helping this committee very much in trying to find a solution. Thank you.

The CHAIRMAN. The Chair recognizes the Senator from West Virginia for questioning.

Senator ROCKEFELLER. Thank you very much, Mr. Chairman. I apologize for coming in late, but I was in Commerce trying to help Iowa and Montana maintain essential air service and airport development authority.

Senator BAUCUS. Good for you.

The CHAIRMAN. More airplanes in and out of Waterloo, Iowa, then.

Senator ROCKEFELLER. That was the point at which I broke down and started crying. [Laughter.] I am not going to say anything about Billings.

Senator BAUCUS. I was going to say, if you cried over Waterloo, what did you do over Cutbank? [Laughter.]

Senator ROCKEFELLER. Mr. Kandarian, I apologize for coming late. I know that of the $13.3 billion deficit—I mean, I can remember when PBGC, back in the 1980's, was just one of the most flush, wonderful agencies to consider. Now I think you are dealing with, what a $13.7 billion deficit?

Mr. KANDARIAN. We have a $3.6 billion deficit, but we had a loss of $11.4 billion, approximately, in one year.

Senator ROCKEFELLER. Yes. So this is a 2-year process. About 7.5 of that comes from the steel industry, am I right?

Mr. KANDARIAN. That is about right.

Senator ROCKEFELLER. Yes. I assume that Senator Baucus was questioning you about that also. I want to be very specific on Wheeling-Pittsburgh Steel, because they are in the process, as you know, of trying to recover from bankruptcy, and they have not given up on that.

There are all kinds of things that are going on right now which could affect both them and Wierton Steel, but Wheeling-Pittsburgh is the subject of the moment.

I have to say that the executives of that company, including a couple of Senators who represent that State, were really startled to learn from the newspapers last week that, despite the very clear ongoing efforts of that company to stay afloat and make good on pension benefits that they had promised their workers, that the PBGC would be coming in and involuntarily terminating their pension plan. That was devastating news for many of the workers and retirees, and it was extremely surprising to me, and, of course, totally unknown, which is usually not a good idea.

Now, it is my understanding also that PBGC made the decision to terminate the plan last week in order to avoid any possibility of becoming liable for shutdown benefits, and I want you to talk about that in a minute.

I understand your desire to minimize your losses. You are, after all, in deficit. I cannot support a decision that unnecessarily punishes the workers that you, as far as I understand it, are meant to protect. That is what you are chartered for. Although you have acted within your legal authority, I cannot argue that, this may not have been a very constructive way to proceed.

Can you tell me why the PBGC did not make a good faith effort to work with the company's executives in order to protect the workers' benefits as they stood just last week instead of precipitously terminating the plan?

Mr. KANDARIAN. Yes, Senator. The issue is shut-down benefits, and the question is whether they should be guaranteed by this agency. My view is they should not. The law is silent. ERISA is silent on the issue.

For much of this agency's history, it has moved to terminate plans before shutdown benefits sprang forward. The way the system works is based upon a regulation issued in 1975, and some have questioned whether it is a good regulation.

The regulation says, essentially, if the plan terminates prior to shutdown occurring, legally, there are no shutdown benefits guaranteed by the agency. If, instead, the company shuts down a facility or the entire company, shutdown benefits are guaranteed if the plan terminates afterwards. So, it is a timing issue.

So in the first instance, let me say why we cannot go and telegraph our actions, because companies can then turn around and shut down prior to our taking the action to avoid the liability.

In fact, that happened in the case of Bethlehem Steel. I was criticized for the first instance when I took this kind of action with RTI, Republic Technologies, International, a steel company which we terminated in June of 2002.

We gave no notice. We simply published in the papers. We called the company, we called the union the day we took the action, and were criticized for doing what you just said.

In the case of Bethlehem, we gave 2 days' notice. The day in between the notice and the day we took legal action, they shut down the facility, costing millions of dollars to the agency. So, that is the issue of why we do not telegraph ahead of time.

Now, the greater issue is, should these be guaranteed benefits? The reason I think they should not be guaranteed benefits, is because, unlike other benefits that we guarantee which are underfunded, these are not unfunded. No money goes aside for these benefits.

Senator ROCKEFELLER. Can I ask, then—and I understand your explanation because I understand your program—is it, therefore, now the policy of PBGC to involuntary terminate pensions in order to minimize your own potential liability?

Mr. KANDARIAN. Under the act, we are required to look at involuntarily terminating pension plans based upon an unreasonable increase in long-run loss to the agency.

So, I looked at the case of Wheeling-Pittsburgh. We studied that company for some time. We hired outside consultants to try to help us understand whether this company could survive without additional access to capital markets and loans.

The company has been in bankruptcy since November of 2000, over 2 years. It sought a loan from the Emergency Steel Guaranty Loan Board. That loan request was rejected.

Once that loan request was rejected, our belief was that there was little chance the company could afford this pension plan, and that we would get the plan eventually in any case.

I should note that this is probably the only instance in our history where we have actually taken in defined benefit pension plans and had significant liabilities from the same company twice; it occurred back in the middle 1980's.

So in this case, the underfunding, without the shut-down, was around $65 million. The shutdown benefits would have added well over $300 million on top of the $65 million.

Based upon the law, based upon ERISA, that is an unreasonable increase in long-run loss based upon our analysis, using both people within the agency and using experts from the steel industry outside.

Senator ROCKEFELLER. All right. Mr. Chairman, I am finished, but I will just close with a comment.

Wheeling-Pittsburgh is considering a number of options. You came to the conclusion that they had been turned down by the loan board, and therefore that was it for them.

They do not think of it that way. They are not proceeding that way. Their banks and their creditors are not reacting in that way. But you made that decision for them, which hurts them, I would assume, with their creditors and their bankers.

So, this is part of the conundrum I think we find ourselves in. You made a decision based upon what you understood, but you did not, perhaps, understand that they have not yet given up by any means.

Mr. KANDARIAN. Mr. Chairman, might I respond to the comment?

The CHAIRMAN. Yes.

Mr. KANDARIAN. We did try to take that into consideration, Senator. We were aware that they might be going back to the Emergency Steel Loan Guaranty Board for another go at the loan.

We are happy to talk to the company about our actions and work with them at this point in time, but if we had waited to do that and they did not get the loan, or chose for some reason not to go forward and simply shut down, that liability would have sprung forward.

So we have sort of put our mark on the ground in terms of the timing of our action. That timing can be negotiated to a different date. That timing can be considered and discussed with the company, and I am happy to do that.

But if I did not put the mark on the ground now and they shut down because the loan was not granted—and by the way, it takes us about four or 5 days, as a legal matter, to declare our involuntary termination because of newspaper ads and all the rest, and the company can shut down, as we noted in the case of Bethlehem, in 24 hours, a group, a facility, or an entire company, in fact, if they are planning for it.

So, we have to consider all these factors, which we did. They are difficult decisions. They weren't done in a vacuum. They weren't done without consideration of all the factors that you discussed. Regrettably, the law is set up in a way that forces us to take this kind of action. I wish it did not, but it does, and that is what I am working under.

Senator ROCKEFELLER. Good. So a change in the law would not be unwelcome to you?

Mr. KANDARIAN. No.

Senator ROCKEFELLER. Thank you, Mr. Chairman.

Mr. KANDARIAN. I wish that the law was not the way it was.

The CHAIRMAN. Before you go, could you give us some sort of aggregate value of the shut-down benefits in the system?

Mr. KANDARIAN. We think it is in excess of $15 billion. To give you some perspective, our entire assets are about $25 billion, and liabilities today are about $29 billion. Shutdown benefits are in steel, auto, tire and rubber, and a little bit in aerospace.

The CHAIRMAN. If they are owed by the company, are these nondischargeable in bankruptcy?

Mr. KANDARIAN. To the company, you are saying?

The CHAIRMAN. Yes.

Mr. KANDARIAN. To the company, there would be a claim against the company's assets, but typically in bankruptcy, there is nothing left over. So we end up taking on these plans, and if a shutdown occurred, again, before we took the plan in, it would be the liability of this Federal Government corporation.

The CHAIRMAN. I was speaking specifically about Chapter 11 type cases, not Chapter 7.

Mr. KANDARIAN. Right. In terms of, can they extinguish those liabilities unilaterally in bankruptcy?

The CHAIRMAN. Yes. Then, if so, are they dischargeable?

Mr. KANDARIAN. I believe they are not, but let me get back to you for the record.

The CHAIRMAN. All right. Then you can give an answer in writing, or I will wait for you to consult.

Mr. KANDARIAN. I will get back to you for the record on that one, Senator.

The CHAIRMAN. All right. That is good.

We thank you very much for coming here as an expert witness in this area, and for the work that you do.

I would call the next panel. I would like all four of you to come right now. You do not have to wait until I call you.

The first one is Christopher W. O'Flinn, vice president, Corporate Human Resources, AT&T, and he will be representing the ERISA Industry Committee; Mark Schuler, Captain, U.S. Airways, from Barrington, New Hampshire; Henry Eickelberg, staff vice president, General Dynamics, representing the American Benefits Council; and Ron Gebhardtsbauer, the American Academy of Actuaries, Washington, DC.

We will start with you, Mr. O'Flinn. Then we will go the Captain, then Mr. Eickelberg, then Mr. Gebhardtsbauer before we ask questions.

You do not have to ask for your complete statement to be put in the record. We will do that. We would ask you to summarize in the 5 minutes that have been allotted.

First, you, Mr. O'Flinn.

STATEMENT OF CHRISTOPHER W. O'FLINN, VICE PRESIDENT, CORPORATE HUMAN RESOURCES, AT&T, BEDMINSTER, NEW JERSEY, CHAIRMAN OF THE ERISA INDUSTRY COMMITTEE

Mr. O'FLINN. Thank you, Mr. Chairman and members of the committee. Thank you for the opportunity to present the views of the ERISA Industry Committee on the funding of defined benefit plans.

ERIC, as we are known, has a unique interest in the funding rules for defined benefit plans, because about 95 percent of our

membership actually sponsor defined benefit programs, as well as other substantial benefit programs, like 401(k) and health plans.

ERIC is pleased to testify today because it is critical that the issue of the proper discount rate to use in determining current funding obligations of defined benefit plans be addressed quickly and in the appropriate way.

If we leave only one message with the committee today, it should be that the continued absence of a permanent and appropriate discount rate in the law is tremendously damaging to the employer sponsors of defined benefit plans, to their shareholders, and to their employees.

The damage will adversely affect the ability of these firms to contribute to the economic recovery, to maintain their defined benefit plans, and to enhance employment opportunities.

Let me give you some examples of the damage I am referring to. Today, investment analysts are starting to notice the absence of a permanent appropriate discount rate in the law for Federal minimum funding rules and are advising investors, in writing, to avoid the stock of companies with major defined benefit programs.

Another example. Corporate finance departments are developing cash flow needs today for 2004, and they are looking at an artificially low discount rate for determining minimum pension funding under the Federal law, beginning in 2004.

Consequently, they are beginning to look for ways to raise the cash demanded by the rules. They are reevaluating their defined benefit plans, they are looking at the level of their workforce in 2004 and today, and equally important, they are looking at other cash needs, like capital investment, on which to trim back all in order to raise capital needed to wake the pension contribution.

Their analysis for all of these alternatives for raising the cash will need to be complete, and their decisions made, by this summer at the latest.

Mr. Chairman, Senator Baucus, members of the committee, this provision in the law concerning the interest rates the Chairman talked about in his opening remarks must be fixed, we believe, immediately, and in the appropriate way or the damaging momentum that is already under way will be too great for any legislation to completely stop.

ERIC has a proposed solution in this area. Echoing the remarks of the Chairman and Senator Baucus in the opening statements, it is intended to balance the needs of everyone who is concerned in this area.

We have already, we believe, a very comprehensive program for funding of defined benefit programs. We have minimum funding standards. The Grassley-Baucus amendments of 2001 have raised the deductibility of pension contributions, which was a very important step, we believe, in encouraging employers to make more than the minimum contribution.

In addition, as the committee members know, we have an accelerated funding rule, a snapshot test, which is intended to take a snapshot of the funding status of the plan in order to determine if funding should be accelerated.

The snapshot looks at the plan assets to determine where they are with respect to the plan's obligations, and it is the assumptions used in taking the snapshot that is the focus of our discussion.

As the Chairman pointed out again in his opening remarks, the key assumption is the interest rate assumption, which in the statute today is the defunct 30-year bond rate, currently at an historic low relative to other rates.

ERIC's proposal is to keep the statutory funding arrangements in place, including the protection of the overview of the enrolled actuary, and including the snapshot test. But we strongly urge that the interest rate be changed to reflect the long-term investments which pension plans typically make in the fixed income area.

We also favor changing the mortality assumptions to reflect the fact that people are living longer, again, balancing the interests around this key determination.

Our goal is that those employers who voluntarily make a pension promise to their employees should be required to take prudent action to fund that promise, but without excessive special funding requirements caused by historical aberrations which can delay our economic recovery, diminish employment, and diminish the rewards for employment.

Thank you, Mr. Chairman, for the opportunity to address the committee.

The CHAIRMAN. Thank you, Mr. O'Flinn.

[The prepared statement of Mr. O'Flinn appears in the appendix.]

The CHAIRMAN. Captain Schuler? Before I forget, please tell your mother hello for me.

Capt. SCHULER. I certainly will. She also says hello to you, too, Senator.

STATEMENT OF MARK SCHULER, CAPTAIN, U.S. AIRWAYS, BARRINGTON, NEW HAMPSHIRE, ACCOMPANIED BY PETE McGUIRK, CAPTAIN, U.S. AIRWAYS, MEMBER OF THE RETIREMENT AND INSURANCE COMMITTEE OF U.S. AIRWAYS' AIRLINE PILOTS ASSOCIATION

Capt. SCHULER. I am Captain Mark Schuler of U.S. Airways. Accompanying me, right behind me here, is Capital Pete McGuirk, also of U.S. Airways, and a member of the Retirement and Insurance Committee of the U.S. Airways' Airline Pilots Association.

I appreciate the invitation of Chairman Grassley and this committee to discuss the effects of terminating the pilots' pension plan on my behalf and my colleagues of U.S. Airways.

As members of the committee are aware, U.S. Airways is currently operating in Chapter 11 of the bankruptcy code and plan to emerge from bankruptcy on March 31, 2003. The company has petitioned the ATSB for approval of a $900 million, 7-year loan guarantee to secure exit financing.

ATSB approval of the loan guarantee and additional debtor-in-possession financing is contingent, in part, upon successful resolution of the pilots' pension issue.

On January 31 of this year, U.S. Airways announced its intention to terminate the Pilots Pension plan, effective March 31, 2003.

Although the company met its minimum legal funding requirements, the drop in the stock market and the low interest rates created a Pilots Pension funding deficit of $575 million in 2004, $333 million in 2005. The bankruptcy court of Virginia approved this termination in a decision on March 1.

The company's decision to terminate the plan followed significant restructuring of labor agreements at U.S. Airways in two rounds of negotiations. In each round of these negotiations, the pilots took the lead among labor groups and agreed to a 33 percent pay cut and significant reduction in work rules.

The company and the pilot group also agreed to a revised and reduced retirement plan. All of these concessions together will save U.S. Airways $645 million annually, reducing the cost of employing a pilot at the company by nearly 46 percent.

Downsizing the airline also resulted in many pilots moving from captain to first officer positions, generating a significant loss of pay. However, the most painful effect of the restructuring was the furlough of several thousand employees, including 1,827 pilots.

After unprecedented contract concessions and furloughs, the pilot group now faces termination of the pension we had planned on for our entire careers. Assumption of the plan by the PBGC presents U.S. Airways pilots with an enormous loss of pension benefits.

The formula for calculating the benefits includes variables such as the pilot's age, time of employment, and projected earnings, which depend on one's seniority position. Therefore, it is difficult to capture a single profile as illustrative of the group.

However, all pilots retire at age 60. This has an effect of reducing the PBGC maximum payment. In my own case, the PBGC benefit at age 60 represents a 67 percent reduction in my retirement benefits, compared with the revised retirement plan reached through a collective bargaining agreement between the union and the company in December of 2002.

That agreement required amortizing the pension deficit to a 30-year term instead of the current 7-year timeframe. The PBGC declined to approve this restoration funding.

With the announcement to terminate pilots' pensions, the company proposed a defined contribution plan to supplement the PBGC guarantee. This plan provides retirement benefits below those of the agreement reached in December of 2002.

It requires an investment return of 8 percent to reach the plan targets and is funded only going forward until a pilot retires at age 60. If a plan similar to this is created, many pilots lose the potential benefit of this supplement to the PBGC guarantee.

First Officer Charles Couch, who is 58, must retire in 2 years, and will realize a 56 percent loss in retirement benefits with the PBGC maximum payment. This monthly maximum payment for First Officer Couch will be $2,382 per month, down from $5,409.

Assuming a replacement plan is created requiring an 8 percent return and the funding for that plan begins April 1, 2003, he will have only 2 years to earn any additional pension benefits.

Captain Mike Fairley was a veteran of Eastern Airlines and the Trump Shuttle. He will shortly be 60 years old and will receive a PBGC payment from the Eastern plan, which was terminated

when the company went out of business. The Trump Shuttle was acquired by U.S. Airways in 2000.

Assuming the PBGC will provide a payment from both the Eastern and the U.S. Airways plan, Captain Fairley's benefits are reduced from an anticipated benefit of $5,880 to $3,760 per month.

If dual payments are not allowed, the benefit is further reduced to $2,910 monthly. In either case, Captain Fairley retires in June of 2003 and has virtually no opportunity to accumulate increased pension fund earnings.

When I joined U.S. Airways in 1985, I was fulfilling a lifelong dream to fly for a major carrier. Pilots plan their careers with a single carrier, because moving laterally to another company is not possible. A move requires starting again at the bottom of a seniority list, and a pilot's seniority determines crew assignment and potential earnings.

As I mentioned earlier, pilots are required by law to retire at age 60. We must undergo semi-annual flight physicals and risk the loss of our license and profession from medical disqualification.

We spend our careers committed to the safety of our passengers and look forward to the pensions earned under the provisions of our contract. Now we face the loss of that earned pension and major losses in our retirement benefit. Without an opportunity to plan earlier for this change in our retirement plan, many will face a significant loss of retirement security.

The agreement reached between ALPA and the company in December of 2002, reducing the existing pension plan, would significantly mitigate the loss of pay and benefits facing the pilot group.

This change is possible under the provisions of S. 119, which would permit restoration funding by amortizing the funding requirements over a period of 30 years. This would be a win for both the pilot group and the company. This solution would also avoid the need for the PBGC to take over another distressed plan.

I would like to thank the committee for this opportunity to testify today, and for your consideration of the situation faced by U.S. Airways' pilots.

Mr. Chairman, if the committee has any questions, I will do my best to answer them. If there are any difficult questions, I would like to defer to my colleague, Captain McGuirk, who has a great deal of experience in dealing with this complicated subject.

The CHAIRMAN. I thank you, Captain Schuler. When we get to questions, that will be permitted.

[The prepared statement of Captain Schuler appears in the appendix.]

The CHAIRMAN. Mr. Eickelberg?

STATEMENT OF HENRY EICKELBERG, STAFF VICE PRESIDENT, GENERAL DYNAMICS, REPRESENTATIVE OF THE AMERICAN BENEFITS COUNCIL, FALLS CHURCH, VA

Mr. EICKELBERG. Thank you, Mr. Chairman, Senator Baucus. I appreciate the opportunity to talk before you today. My name is Henry Eickelberg. I am the staff vice president of Benefit Programs at General Dynamics Corporation here in Falls Church, Virginia. We are a major defense and aerospace company and we employ 48,000 employees here in the United States.

I am appearing before you today on behalf of the American Benefits Council, where General Dynamics is a member, and I personally serve on their board of directors.

The American Benefits Council is a public policy organization, representing principally Fortune 500 companies and other organizations that either sponsor directly or provide services to retirement and health plans, covering more than 100 million Americans.

Like you, the council and its member companies are very concerned about the health of the voluntary employer-sponsored defined benefit programs. It is no secret that defined benefit plan sponsorship has declined for many years, and it is the position of the council that, without immediate, comprehensive, and permanent interest rate relief, this trend will only accelerate.

Mr. Chairman, Senator Baucus, the council applauds you for your leadership on the 2001 tax bill that made many improvements in the defined benefit system, and we particularly appreciate the temporary interest rate relief.

But that relief is set to expire at the end of this year unless Congress can enact a permanent and comprehensive change. We believe that that change must take place this spring in order to provide certainty to employer sponsors.

The financial ramifications of the low 30-year bond rates have led increasing numbers of employers to either freeze their defined benefit plans or to terminating them.

In addition, we believe that it is in Congress' best interests to look at the way that pension plans are funded. It makes no sense that companies are prohibited from making certain contributions to their plans at the very time when the economy is doing well and they have the money, yet during an economic downturn, as we are experiencing now, they are frequently required to make large infusions of cash into their pension plans.

The common-sense approach would be to allow employers to more generously fund their plans in times of economic strength, and thereby better weather economic downturns.

Tied up in the discussion of the current state of plan funding, is the financial condition of the Pension Benefit Guaranty Corporation. The council takes this matter very seriously.

I want to underscore that it has been the council's position, in representing companies like General Dynamics with well-funded plans, to be at the forefront of past Congressional efforts promoting strong funding that insures that the weakest plans would not be able to terminate and impose their liabilities on the rest of PBGC premium payors such as General Dynamics, or, in the alternative, the Federal Government.

Simply stated, the American Benefits Council has no incentive to trivialize any of the problems at the PBGC because it is our member companies who inevitably will be called to pay higher premium costs in the event of default by sponsors of underfunded plans.

We believe the best way to ensure the agency's financial integrity for the long term is to strengthen the commitment of employers that sponsor defined benefit plans. Mr. Chairman, pension plans do not go broke. It is employers that go broke.

In conclusion, the council feels strongly that we must ensure that defined benefit plans remain a viable choice for employers so that

companies can select the benefit plan design most suited to their needs and the wishes of their workforce. Without prompt action by Congress, however, we fear that these plans will increasingly disappear from the American pension landscape.

I thank you for the opportunity to appear before you today, and I would be pleased to answer any of your questions.

The CHAIRMAN. Thank you.

[The prepared statement of Mr. Eickelberg appears in the appendix.]

The CHAIRMAN. Now we go to Mr. Gebhardtsbauer.

STATEMENT OF RON GEBHARDTSBAUER, THE AMERICAN ACADEMY OF ACTUARIES, WASHINGTON, DC

Mr. GEBHARDTSBAUER. Thank you, Chairman Grassley, Ranking Member Baucus. Good morning, and thank you for inviting us to testify on keeping defined benefit pension plans afloat.

My name is Ron Gebhardtsbauer, and I am the senior pension actuary for the American Academy of Actuaries. The Academy is the professional organization for all actuaries in the United States.

My written statement provides more details on this subject, so that I can focus on the most important issues for this hearing, namely a need for a quick fix to the pension discount rate.

As you pointed out earlier, defined benefit plans are beneficial to employees, employers, and the Nation. However, many employers are considering freezing or terminating their plans because the temporary fix to the discount rate expires at the end of this year.

There are many major financial decisions being made today that depend on what next year's pension contribution will be. For example, bankruptcy judges are being forced to decide today whether employers before them can afford their pension plan.

The courts may decide that the employer cannot afford the pension, and later find out the rules have been fixed and that the employer could have afforded the plan. Bad decisions can come from this. Thus, a permanent fix is desperately needed, and needed very soon.

So what should the discount rate be? The Academy's Pension Practice Council believes that a high-quality corporate bond rate—that is the blue line on my chart—or an annuity pricing rate—that is the green line on the chart—either one of them would be appropriate.

In addition, the chart shows the highest permissible discount rate allowed by the law in the past. That is the brown line, the smoother line. That is the highest interest rate we are allowed to use right now.

You will note that that highest permissible rate that we have been using in the past has actually been very close to the corporate bond rate, the blue line. In fact, it has been above the annuity rate.

In fact, when the interest rates fell recently, Congress fixed this temporarily last year by putting that permissible rate back up where the corporate bond rate is.

There are reasons to choose the corporate bond rate. For instance, the SEC and the financial accounting standards require it for financial statements. In addition, if a terminating pension plan is funded to the amount that this corporate bond number would

create, it generally does not need help from the PBGC because, if there is a shortfall, it is small and the employers have typically made a contribution in order to avoid going to the PBGC.

However, if the employer does not make the contribution, PBGC will generally not experience an economic loss because PBGC does not always guarantee the full benefit and they do not buy annuities either.

As I mentioned, another acceptable rate is the discount rate used for pricing annuities, again, the green line. It could increase costs by another 6 percent or 8 percent or so over what high-quality corporate bonds would create.

But employers do not want to contribute more than they need to. What is that amount? Well, they self-insure, just like the PBGC, so they can invest in stocks and earn a higher rate of return on average, and avoid paying for the higher expenses, the risk margins, and profits of insurance companies.

There are many other ideas for keeping defined benefit plans afloat described in our written testimony. One very important idea would be to allow employers to contribute in the good years.

Many people have asked why certain employers did not contribute in the 1990's. The answer is, some were not allowed to make a deductible contribution. In fact, if the employer had made a contribution to their pension plan, they would have been penalized with an excise tax.

The pension funding limit should allow a pension plan to create a margin over current liability. It works when interest rates are high, but it does not work when interest rate are low, particularly for plans that are retiree heavy, and hourly plans which cannot advance-fund their benefit increases.

In summary, being forced to contribute when you can least afford it and being kept from contributing when you can afford it is unreasonable and difficult on the PBGC, employers, and participants. We believe that fixing the discount rates soon and allowing contributions above current liability would resolve these two major issues.

We at the Academy thank you for holding this hearing and for inviting us to speak. Thank you.

The CHAIRMAN. Thank you.

[The prepared statement of Mr. Gebhardtsbauer appears in the appendix.]

The CHAIRMAN. We will take five-minute rounds.

I am going to start with a question for Mr. O'Flinn and Mr. Eickelberg. Mr. Kandarian testified that only a few companies had their pension contributions limited by current funding rules.

During the boom of the 1990's, how many of your members contributed the maximum allowed by the rules? Was it government contractors who had costs plus expenses, such as AT&T and General Dynamics, or were they the steel, airline, and similar companies hurt by the current rules?

Mr. O'FLINN. Mr. Chairman, I cannot be completely responsive to your question now, but I can be partially responsive. I recall Director Kandarian's testimony was that 20 percent of the population were limited. I think that is a substantial number of people to be limited, 20 percent of the pension universe.

The maximum limitations in terms of the impact on ERIC, members all of which sponsor defined benefit plans, I do not have. However, they are among the most well-funded plans in the United States. AT&T, in particular, is still in an over-funded position, despite being in a competitive environment for about 19 years. But, Mr. Chairman, we will get that information for you.

The CHAIRMAN. Mr. Eickelberg?

Mr. EICKELBERG. Yes. Mr. Chairman, I do not have an answer in terms of the splits that you asked for. In our own particular situation at General Dynamics, we would have been subject to an excise tax and potentially criminal penalties for making contributions to our plans.

In a defense contracting situation, there is a further set of rules which limits the amount that is reimbursable on government contracts. So, even though the IRS rules may require a contribution, the required contribution by the IRS would not be an allowable expense and would be paid out of the pockets of the shareholders of the corporation.

We have been very conservatively funded and really looked at our plan from a stewardship standpoint, and we are in a position where we were fully funded.

The CHAIRMAN. Mr. O'Flinn, your organization has been quoted as saying that the PBGC probably will not have a problem until it runs out of money. Now, that is kind of an irresponsible position. Should we wait until there is a crisis before we protect the finances of the only backstop to the defined benefit pension system, which is PBGC?

Mr. O'FLINN. Absolutely not, Mr. Chairman. We did not suggest that our position was anything other than that the PBGC should be strong and robust financially. We are mindful, however, of the balancing needs that both you and Senator Baucus referred to earlier. The PBGC can pay its benefits today and for many years; they are not in crisis.

The issues are as Director Kandarian outlined them. Our organization would be very pleased to work with Director Kandarian, as we did with his predecessors in 1987 and in the early 1990's when we raised concerns over funding and premium rates.

The CHAIRMAN. I would follow up with a question to you, as well as to Mr. Eickelberg. Given that Mr. Kandarian testified that it would take 12 long years worth of premium income to make up for the claims paid out in 2002 and that under funding is at a record $300 billion, is it appropriate for Congress to grant much relief beyond easing interest rate requirements that were enacted in last year's stimulus bill? Mr. O'Flinn, then Mr. Eickelberg.

Mr. O'FLINN. Mr. Chairman, any stimulus that the Congress could see fit to employ to increase contributions to pension plans, I think, would be a good idea, consistent with sound actuarial funding based on good and logical interest rate assumptions and mortality assumptions.

Mr. EICKELBERG. Mr. Chairman, it would be our position that the current PBGC rates, both for the fixed and the variable premiums, are at this time appropriate. We believe that the PBGC's position is serious and warrants close monitoring.

We do not believe that it would be in the best interests of public policy, for either our members or the employees that are covered by these plans, to increase the cost of maintaining these programs. It would only have the effect of forcing further employers to terminate or freeze these benefits.

In terms of longer help that would be available to sponsors, I think it is important to unscramble the current tax law which prohibits contributions when a company is doing well financially. The stock market goes up, your investments in the plan go up, and the actuary says you cannot put any money in the plan.

The stock market goes down because businesses are not doing very well, and the actuary says, besides you having more bills than you thought you were going to have, you have got another one to deal with. So that type of an alignment would be very welcome support. Thank you, Mr. Chairman.

The CHAIRMAN. Thank you.

Senator Baucus?

Senator BAUCUS. Thank you, Mr. Chairman. I would like any of you that want, to take a stab at this. Mr. Kandarian basically said, do not raise rates, or do not give a bail-out. Do not give assistance now to U.S. Airways alone, or that industry alone, because that is too piecemeal and it would need a longer term solution.

He said, therefore, use the current financing arrangements we have today, namely, the Airline Transportation Stabilization Board. If I understood him correctly, that is basically what he said.

Your response, anybody?

Mr. EICKELBERG. Yes. I would say that that is an appropriate reflection of his comments. I think that the American Benefits Council would also echo that. There have been a number of large plans that have been hoisted onto the PBGC where financial concessions were not made to the participants.

I think the executive director of the PBGC was simply stating that, to the extent that in public policy and in good judgment that type of relief is necessary, it should take place outside of the payment structure that is provided under the PBGC, because otherwise member companies such as General Dynamics and AT&T are simply going to be responsible for paying that.

Senator BAUCUS. Yes. I will get to Captain Schuler's colleague in just a minute, but I want to get to other witnesses, first.

Mr. O'Flinn, do you have a response?

Mr. O'FLINN. Yes, Senator Baucus. I basically agree with Director Kandarian's view of the law and understand his reluctance to make special arrangements. We do note, however, that Director Kandarian would be one of the few creditors who was unable to "work out" arrangements with a debtor if the law were to remain the same.

It might be possible that, given the number of creditors that might be coming his way, that this would be worthwhile looking into. That is to say, some legislation in this area would be worth examining.

Senator BAUCUS. Mr. Gebhardtsbauer?

Mr. GEBHARDTSBAUER. The Academy actually has not addressed this particular issue, so I cannot say what the academy would say.

Senator BAUCUS. Your personal view.

Mr. GEBHARDTSBAUER. As a practicing actuary and someone who has been in the business for a while, I guess I can see the concern, that if you modify the rules just for one organization, that it is difficult on the competitors.

Just as one organization lowers payroll, then the others end up having to do it. If one reduces pension costs, then the others will want to be able to do that, too, in order to be able to continue to compete.

Senator BAUCUS. So you tend to sympathize with his main view, that is, let us not change the payback rate for one company or one industry alone?

Mr. GEBHARDTSBAUER. I think that is correct. I think he had a lot of really good points in that area, about how it is not as good to do it just with one organization, but maybe if you had to do something quick, maybe for an industry, but the best thing is to be able to have a set of rules that apply everywhere.

Senator BAUCUS. Captain Schuler, your colleague wants to say something. Why do you not come to the table, sir. Sit down and state your name, please.

Captain McGuirk. My name is Captain Pete McGuirk, U.S. Airways. I wanted to respond to the issue of U.S. Airways. I have a fundamental problem with any kind of a system that has absolutely no accommodation for merit.

I think, when you look at the situation of U.S. Airways and the airlines in general, you have to look at, first off, what has happened to the airlines in particular as a result of 9/11, and perhaps at U.S. Airways specifically because of the impact of the closing of Reagan National Airport, which is one of the major hubs of U.S. Airways, and the impact that that has had on the financial results.

I attended the hearing on Senate bill 119 back in January. During that testimony, I heard that the PBGC did not believe that they were specifically authorized to accommodate restoration funding for any plan.

But, under repeated questioning by the panel, I never heard that there was any inability to grant restoration funding, that it was not specifically prohibited either.

I would submit that the inability to judge on merit, considering the dramatic reductions in costs that the pilots at U.S. Airways have undergone as a result of the two restructuring agreements—the second restructuring agreement made major concessions in the pension benefits, essentially freezing the pensions for any pilot that had more than 21 years of service, reducing by more than half for any other pilot remaining on the payroll.

So, going forward, the increased liabilities of the plan were dramatically reduced. I believe that we are a perfect candidate for judgment by some kind of a standard, perhaps similar to what the ATSB has done, to determine whether or not this airline should be granted restoration funding.

Not doing so has a terrible business result, both for the PBGC and the pilots of U.S. Airways whose benefits are dramatically reduced. The PBGC has a liability of half a billion dollars, which they now are contemplating undertaking, starting on the 1st of April.

Senator BAUCUS. My time has expired, so thank you very much, sir.

The CHAIRMAN. Thank you, Senator Baucus.

Senator Bingaman?

Senator BINGAMAN. Thank you very much, Mr. Chairman. I apologize for not being here for all of the testimony, but I did see some of it on the television.

Let me ask, in addition to this suggestion here Mr. Eickelberg, you make the suggestion about allowing contributions in good years.

Are there some other things that could be done by the Congress to make it more attractive for employers to provide defined benefit plans? It has been many years since anybody has established a defined benefit plan, as I understand it.

I mean, the trend is all against defined benefit plans. Everyone is shifting from defined benefit to defined contribution, and many are dropping that. So are there other things in addition to this allowing contributions in good years that you think might reverse that trend, or are the economic pressures to reduce wages and benefits so great that there is no way to swim against that tide?

Mr. EICKELBERG. No. I think that one of the major factors in the decrease in defined benefit plans—well, there are really two of them. I would say the first of them is the desire by employees, and the understandability of a defined contribution. You can look at a bank account and you can judge how much money you have got. A defined benefit plan is a promise to pay money on a monthly basis at some time in the future. It is not as tangible.

I can tell you, on behalf of the members of the American Benefits Council, that all of us slug through a lot of rules in order to comply and keep our plan in legal compliance.

If you look at the cost to deliver a benefit to an employee, the 401(k) plan is the cheapest benefit. It is easy. You can hire somebody to handle it. It is very hard to goof it up. For the defined benefit plan, there are so many trip wires that exist in the law today.

General Dynamics has a lot of people. We have got very competent professionals and a lot of lawyers, and they can slug through those rules. A smaller company, 500 people out in the Midwest, they are just not going to do that. Their company lawyer is not going to advise them to create a defined benefit plan. They are just not going to do it.

Senator BINGAMAN. Do you think it is possible to eliminate or streamline those rules and avoid—I mean, some of those rules are put there to avoid some abuses preferential treatment for top executives and that sort of thing.

Mr. EICKELBERG. Right.

Senator BINGAMAN. Do you think that you can deal with those problems in a reasonable way without having all the rules?

Mr. EICKELBERG. I do. I think, as a matter of fact, the rules that are in place on discrimination were actually placed in the law because small employers, doctor's offices, would have coverage for the doctor and not for the nurses.

At General Dynamics, we do not have qualified plans that cover our senior executives and nobody else. We have plans that cover probably 98 percent of our entire workforce. We are very happy with those plans, and all of the employees there count on those plans, in addition to a 401(k) plan, and Social Security.

Yes, I do honestly believe, if you took complexity out of the system and you added flexibility for contributions, that employers would contribute because it is the type of program where it is a benefit to their employees.

Senator BINGAMAN. Yes. Did you have a point of view on that?

Mr. GEBHARDTSBAUER. Thank you very much, Senator Bingaman. Yes. There was a hearing last year, in fact, on how can we encourage companies to have defined benefit plans. In our testimony, we pointed out that a lot of companies are moving to the 401(k) idea and it has a lot fewer rules.

So not only is it the issue of rules, the defined benefit plans have a lot more complex rules, but the playing field is not level, not only on the rules, but also there are some things you cannot do in the defined benefit world.

For instance, you cannot have pre-tax employee contributions go into the defined benefit plan. You can do it on the 401(k) side, but you cannot do it on the defined benefit side.

Another example, is it is difficult to do matches in the defined benefit plan, but you can do them on the defined contribution side. So, it is an unlevel playing field. Employers would like to have sort of a level playing field so they can decide what is best for them, and in fact best for their employees, too.

But sometimes you weigh them and the rules are just a lot heavier on the defined benefit side, so you go with the 401(k) side. Employees liked that idea back in the late 1990's, I think, because they figured they could get their 20 percent returns and do better than anybody else. But now I find a lot of people coming to me saying, where do I invest my money? In fact, I think employers are hearing that, too.

They are finding that employees really want companies to keep their defined benefit plans. So it is not only an issue of, how can we get more defined benefit plans, but also maintaining the defined benefit plans that we still have.

Mr. EICKELBERG. And if I may add, Senator, it is about risk. You have got to create an environment where the employer is willing to take the risk. Right now, what we have got is a situation where that risk has shifted to the employee, both for two things. First, the rate of return, and also mortality. People are getting older.

I think Chairman Greenspan testified in front of the Aging Committee, and he mentioned that a lot of people were dying with large sums of money. That is because, in retirement, they are very conservative about what they spend because they are not sure how long they are going to live and what their expenses are going to be. Defined benefit plans are a terrific answer for that.

The CHAIRMAN. Thank you, Senator Bingaman.

I have a follow-up to a question that Senator Bingaman asked, and I would like to ask Mr. Eickelberg. If hybrid defined benefit plans are prohibited by statute or regulation, what impact will that have on defined benefit plan sponsorship?

Mr. EICKELBERG. Well, Mr. Chairman, I think if that is the choice, then the choice becomes a traditional defined benefit plan or no benefit plan. As Mr. Gebhardtsbauer said, I think the idea is to introduce flexibility and responsibility into the system, not a weakening of choices.

The CHAIRMAN. Thank you.

Mr. Gebhardtsbauer, should plans not have to fund shut-down benefits, because if they do not have to be funded, why should the PBGC have to pay for them?

Mr. GEBHARDTSBAUER. Currently, it is difficult to fund in advance for shut-down benefits. If it is something where the whole company could shut down, you cannot fund for it and you end up getting what we call gains every year because the company did not shut down.

So if you have lots of years in which you are always shooting for something that is too big, the rules make it difficult on the actuary to fund that. So, the laws actually make it difficult right now to fund for shut-down benefits.

If you are a big company with lots of little facilities where shutdowns can occur in one little facility or another, you can actually fund for that. But if it is the whole company, it is very difficult to fund for that.

So I think we should consider ways in which employers could start having more margins in their pension plans. That goes back to this idea again. Right now, the interest rates are so low that you cannot put more money into the pension plan beyond 100 percent of your current liabilities.

So if you could put this money in, that would reduce the risks that we were talking about earlier, too. Maybe employers have not put money in their plans in the past more than they had to, but I think now they have learned about risk, just like individuals, and that they need to have these margins.

Margins could help fund for shut-down benefits. But another possibility is, if you cannot fund for shut-down benefits, then it is awkward then for PBGC to have to guarantee those shut-down benefits.

Also, in addition, they cannot charge premiums for shut-down benefits right now, so that is also a concern for them. So, you can understand their concern. In addition, if companies that do have lots of shut-down benefits, in effect, treat it as a no-cost item, then since PBGC is insuring everybody, then the costs are spread and it is spread to companies that do not have shut-down benefits.

The CHAIRMAN. All right. Also, a question of you. This is from your testimony, that plans would be better off if Congress eased the funding rules. The Academy has done a lot of research in this area. But has it not been PBGC's experience—and I would say certainly it has been in the case of steel—that easing the funding rules for chronically underfunded plans has not resulted in improvement of overall funding?

Mr. GEBHARDTSBAUER. Actually, our testimony, on pages 11 and 12, talks about tightening the rules, and particularly for the plans that you were talking about that are more likely to be underfunded, hourly plans or bargained plans.

For instance, right now, every 3 years they can improve benefits, and then they fund for them after that. That is not something that is their fault, it is something that is in the law.

You cannot fund in advance for a benefit improvement until the benefit improvement actually occurs, and then the law actually al-

lows you to fund for it for the next 30 years, which we at the Academy feel is too many years to be funding for these benefits.

In fact, an example, is when you improve benefits for retirees, those benefits go up and they are probably going to be paid out over the next 10 years, but the company gets to fund for it over the next 30 years. So, in effect, a retiree increase actually de-funds the pension plan. In fact, you will see in our testimony several ideas that we have talked about where we could strengthen these rules.

You are right. Just allowing companies to put more in does not solve all the problems because there are companies out there that will not do it automatically because they are allowed. So, you need to encourage them.

We have another section in the report, if I have a few minutes, that shows that there is some encouragement already in the law. Right now, if you are funded under 125 percent of current liability, you cannot move money to the health plan. If you are under 110 percent, you cannot pay the full lump sum to the top 25 employees.

If you are under 100 percent, you can actually get hit by an accounting rule so that there is a hit to equity, so a lot of companies try to avoid that by putting a lot of money—I think IBM and Ford—into the plan.

But then there was the question of whether they could even deduct it. So, there is lots of pain when your pension plan has less assets. So I think employers now are going to want to use this idea to put more money in. But I think not only do you need encouragement, but on some plans that are historically under funded, like the hourly plans, I think those rules definitely need to be strengthened in a mandatory way.

The CHAIRMAN. Captain Schuler, I know during the last time you had negotiations, that your union and management negotiated both wages and benefits. Do you have any idea why there was not a negotiation for fully funding pensions rather than higher wage increases in the package?

Captain Schuler. I think I would defer to Captain McGuirk for that question.

The CHAIRMAN. All right.

Captain McGuirk. The wage increases that we got recently—and this is not my particular area of expertise. I was not even a member of U.S. Airways back when the contract was negotiated. The pay raises were given via a parity mechanism that was written into the contract. I think in the more recent agreements there were, in fact, provisions in there for strengthening the funding of the pilot plan.

The CHAIRMAN. All right. Senator Baucus?

Senator BAUCUS. Mr. Gebhardtsbauer, in looking at a couple of questions, one on your chart.

Mr. GEBHARDTSBAUER. Yes, sir.

Senator BAUCUS. The lines tend to bunch up.

Mr. GEBHARDTSBAUER. Right. They are all pretty close, especially from this distance.

Senator BAUCUS. Yes. Then at the end they diverge a little. Explain that.

Mr. GEBHARDTSBAUER. Oh, right. In the past, the Treasury rates, the corporate bond rates, and the annuity pricing rate were all much closer.

Senator BAUCUS. Yes. Around 10 percent in 2001.

Mr. GEBHARDTSBAUER. Right. In the year 2000, the Treasury rates fell. In fact, all interest rates fell, but Treasury rates fell dramatically lower, for a couple of reasons. Back in 1999, it was because we thought we were going to have a surplus, so the markets reacted to that.

More recently, now the deficits are here, it is because there is a flight to safety. People are getting out of stocks and going into the very safe investments of Treasury bonds. So the interest rates on Treasury bonds are unusually low right now.

The reason why they parted, is because insurance companies, when they get money from you for the annuity, they invest in corporate bonds, they do not invest in Treasuries, generally. They invest in corporate bonds and mortgages, and they take out a little bit for risks and expenses. So, that is why the annuity rate is a little lower than the corporate bond rate.

Senator BAUCUS. Right. I guess my question is, since we are going to move away from 30-year Treasuries into something else—I do not know what it is—when I saw the wider gap there, I wondered if that was any clue to what we should move toward.

You suggested, I guess, corporate bonds. Is that correct? The blue line?

Mr. GEBHARDTSBAUER. In fact, if you actually look, the law actually said you could use 110 percent of the Treasury rate, and then it moved to 105 percent of the Treasury rate. So if you actually look at the line that we are allowed to use, the brown line.

Senator BAUCUS. Right.

Mr. GEBHARDTSBAUER. Actuaries are allowed to use that interest rate up to the brown line. You will notice that the brown line is very close to the blue line. So, historically we have been allowed to use interest rates up to the corporate bond rate. It was calculated based on the Treasury rate.

But then, a few years ago, the Treasury rate was so low, that even if you took 105 percent of it, or 100 percent of it, you still ended up with an interest rate that was actually not only below corporate bonds, it was also below annuities. In fact, at one point it was even below Treasuries, because the Treasury spiked up at one point.

Senator BAUCUS. But you suggest, as I recall, that the solution is to raise discount rates, and also, I guess, increase the caps on the amounts that can be contributed or deducted. Is that correct?

Mr. GEBHARDTSBAUER. That is correct. For instance, Ford and IBM put a big contribution into their pension plan this year, and it was actually because the accounting rules had a positive effect for the PBGC.

Senator BAUCUS. But why would you want to increase the discount rate, which has the effect of lowering the contribution?

Mr. GEBHARDTSBAUER. We at the Academy believe that if the law is not fixed right now—for instance, I looked at the newspaper today, and Treasury rates are like 4.6 percent, I think, something

like that. Very low. So if we continue to use the rule the way it is now, as you can see, it went very low.

Then Congress did the temporary fix to put it back up around the corporate bond range. But if it reverts back, then a lot of employers are going to say they cannot afford their pension plan.

In addition, I think they are going to see that it is very difficult for Congress to fix the rule when it gets broken. I think, if Congress does fix it when it is broken, that will give employers the faith that Congress is watching and fixing the rules.

It makes sense that Congress wants employers out there to be able to choose between defined benefit and defined contribution plans, choose the one that is right for them, and that they are going to keep the rules working.

Senator BAUCUS. Well, Congress did increase the amount that could be deducted fairly recently.

Mr. GEBHARDTSBAUER. Right. That 2-year fix is on the chart. You will notice, the brown number went up to the blue line.

Senator BAUCUS. Oh, yes. Right. There it is.

Mr. GEBHARDTSBAUER. And that actually put it back up into the corporate range, but it actually falls back down to below even the annuity rates.

Senator BAUCUS. Does anyone disagree with Mr. Gebhardtsbauer's general premise?

Mr. EICKELBERG. No. I would echo his sentiments on behalf of the American Benefits Council. The lower the interest rate, the more the liability, even though the liability goes out into the future 60 years.

When you value it for the contribution determination in any particular calendar year, the lower that interest rate, the more the liability, and therefore the more cost you have. We would not have had this hearing 3 years ago. Yesterday was the 3-year anniversary high on the Nasdaq.

At that time, we had a lot more money in our pension plan and I had a lot more hair on my head. This is the kind of relief that employers need, and it will show the faith that the Congress has got in these programs.

Senator BAUCUS. As I understand it, GAO did a study that raised some questions, that is, some down sides of using the corporate rate. That is, questions of transparency and potential manipulation.

Mr. EICKELBERG. Right. I went through their report which was issued, I believe, last week. They did not advocate a particular interest rate, but they did say that there were certain factors that they would like to see in that interest rate.

One of those, is the inability to manipulate the interest rate. The other was, as Ron has said, that the interest rate reflect the cost of an annuity purchase.

The way that we got started down the road, was we started with an interest rate off the Treasuries, then added a premium on it or a corridor to mimic the cost of the annuity purchase. But now with the Treasuries having dropped, as Ron's chart shows so aptly, it has dropped way below that now.

Senator BAUCUS. But you think there are ways then to accommodate those concerns? I guess you agree that those concerns are legitimate?

Mr. EICKELBERG. Yes, I do.

Senator BAUCUS. And that there are ways to accommodate them?

Mr. EICKELBERG. Yes, I do.

Senator BAUCUS. All right. I am finished, Mr. Chairman.

The CHAIRMAN. Thank you.

Does Senator Bingaman want to participate in a second round?

Senator BINGAMAN. Yes, Mr. Chairman. Let me just ask a couple of questions.

Mr. O'Flinn, your testimony also talks about this need to replaced this 30-year Treasury rate, and indicates that unless something is done so that that can change by the end of the second quarter, I think as you put it, "action by the end of the second quarter, after which planning for 2004 becomes critical, is vital. Delay means damage to plans and their participants, damage to companies, damage to companies' ability to fuel economic recovery." So your view is, we need to act. We need to legislate right away on this issue.

Mr. O'FLINN. That is correct, Senator. Of course, the interest rate we are talking about is not the interest rate for the normal funding. It is only the interest rate for the snapshot test to determine if accelerated funding is necessary. So, it is not a wholesale revision of funding.

It is basically correcting a special test intended to accelerate funding. Although there is a temporary fix in place now, thanks to this committee, it expires at the end of this year.

But you read my point exactly right, Senator Bingaman. We cannot wait until the end of this year to fix it, because folks who are very interested in what that rate is, including corporate finance people and including the investment community, are acting now basically on the worst assumption.

Senator BINGAMAN. What is the administration's view on this proposal that you all are making here for us to go ahead and legislate on this?

Mr. O'FLINN. We have received a lot of very favorable support from the professionals in the benefits community, including the actuarial community. But I am not aware that we have heard officially from the administration yet.

Senator BINGAMAN. Have any of you had any discussion with anyone in the administration about this?

Mr. O'FLINN. Yes we have.

Senator BINGAMAN. Mr. Chairman, I hope we are able to do something on this issue. It sounds like something that would be a high priority.

The CHAIRMAN. Yes. We expressed, Senator Baucus and I did, earlier, about not having somebody here from the administration, as we thought Deputy Secretary Fisher was going to come and testify. We also reminded administration people of the promise, if they go through the confirmation process, to appear when called upon for testimony.

So I know you were speaking about product more than process, but I think hearing from the administration is very important in this regard as well.

Senator BINGAMAN. Thank you very much, Mr. Chairman.

The CHAIRMAN. All right. Senator Baucus said he did not have more questions. I think there will be some I will submit for answer in writing. We thank all of you for participating, and the hearing is adjourned.

[The questions appear in the appendix.]

[Whereupon, at 11:59 a.m. the hearing was concluded.]

APPENDIX

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

PREPARED STATEMENT OF HENRY EICKELBERG

Chairman Grassley, Ranking Member Baucus, I thank you for the opportunity to appear before you today on this critically important topic. I am Henry Eickelberg, Staff Vice President for Benefit Programs for the General Dynamics Corporation. General Dynamics is a major defense and aerospace company employing over 48,000 people within the United States.

I am appearing today on behalf of the American Benefits Council, where General Dynamics serves on the board of directors. The American Benefits Council (Council) is a public policy organization representing principally Fortune 500 companies and other organizations that assist employers of all sizes in providing benefits to employees. Collectively, the Council's members either sponsor directly or provide services to retirement and health plans covering more than 100 million Americans.

Like you, Mr. Chairman, the Council and its member companies are very concerned and troubled by the health of the voluntary, employer-sponsored defined benefit pension system. The largest problem for employer-sponsored defined benefit plans is the required use of an obsolete interest rate for pension funding, pension premium and lump sum distribution calculations. Use of this obsolete benchmark—the rate on 30-year Treasury bonds—artificially inflates the plan's liabilities and required contributions, threatening employers' ability to continue their commitment to defined benefit programs for their employees. The effects of this interest rate anomaly are exacerbated by the current economic and stock market downturn, which has dramatically reduced plan asset levels, wiping out five years of asset gains in many cases. Employer sponsors of defined benefit plans also confront plan funding rules that aggravate the negative effects of economic slumps without allowing the development of financial cushions in good times, continued resistance by some to hybrid pension plans, and the prospect of counter-productive changes in pension accounting rules.

Fortunately, Congress can address many of these issues in a positive manner that will enable employers to provide financially sound pension programs. Our testimony details the current threats and opportunities below. After providing some background on the defined benefit system and the current state of pension funding, we discuss the need for pension funding reform and offer our views on the financial position of the PBGC. We then offer our recommendations for replacement of the 30-year Treasury bond, discuss the need to make certain 2001 pension reforms permanent and urge enactment of certain defined benefit reforms previously put forward by Chairman Grassley and Senator Baucus. We close with discussion of the recent regulatory efforts regarding hybrid plans and the potential threat posed by an emerging re-evaluation of pension accounting principles.

The Council commends the Committee for examining these issues, and we look forward to working with all Committee members in the weeks and months ahead to ensure that defined benefit plans remain a viable retirement plan design for employers.

Background on Defined Benefit Plans

Mr. Chairman, today's examination of our private-sector defined benefit pension system is urgently needed. While this system helps millions of Americans achieve retirement income security, it is a system in which fewer and fewer employers participate. The total number of defined benefit plans has decreased from a high of 170,000 in 1985 to 56,405 in 1998 (the most recent year for which official Department of Labor statistics exist), and most analysts believe there are fewer than

50,000 plans in the U.S. today.[1] There has been a corresponding decline in the percentage of American workers with a defined benefit plan as their primary retirement plan from 38 percent in 1980 to 21 percent in 1997. Looking at the decline in defined benefit plans over just the past several years makes this unfortunate downward trend all the more stark. The Pension Benefit Guaranty Corporation (PBGC) reports that it insured 39,882 defined benefit plans in 1999 but only about 33,000 plans in 2002. This is a decrease of over *six thousand* defined benefit plans in just three years. These numbers reflect the unfortunate reality that today's environment is so challenging that more and more employers are concluding that they must freeze or terminate their pension programs.

These numbers are particularly sobering because defined benefit plans offer a number of features that are effective in meeting employee needs—benefits are funded by the employer (and do not typically depend upon employees making their own contributions to the plan), employers bear the investment risk in ensuring that earned benefits are paid, benefits are guaranteed by the federal government through the PBGC, and benefits are offered in the form of a life annuity assuring that participants and their spouses will not outlive this benefit. The stock market conditions of recent years (and the corresponding decline in many individuals' 401 (k) balances) have once again demonstrated to many the important role that defined benefit plans can play in an overall retirement strategy.

So, with these advantages for employees, a logical question is what has led to the decline of the defined benefit system? We see several factors that have played a role. First, we see a less than friendly statutory and regulatory environment for defined benefit plans and the companies that sponsor them. Throughout the 1980's and early 1990's, frequent changes were made to the statutes and regulations governing defined benefit pensions, often in the name of promoting pension "fairness." The primary driver behind these changes was a desire to eliminate potential abuses attributed to small employer pension plans. And yet, these rules were applied to across the board to employers of every size. The result was that defined benefit pension plans became increasingly expensive and complicated to administer. Additionally, plan design flexibility, which is so important to large employers, was impaired. During this same period Congress repeatedly reduced the benefits that could be earned and paid from defined benefit plans in the name of increasing federal tax revenues, thus significantly reducing the utility of these voluntary plans to senior management and other key decision-makers.

The current tax laws also saddles defined benefit plan sponsors with significant—and often unpredictable and untimely—financial commitments. Many companies have found the cost of maintaining a defined benefit plan more difficult in light of intense business competition from domestic and international competitors, many of whom do not offer defined benefit plans to their employees and so do not have the corresponding pension expense. In addition, employees have not tended to place great value on defined benefit pension benefits offered by employers, preferring "shorter-horizon" and more visible benefits such as 401(k) and other defined contribution plans, stock option or stock purchase programs, health insurance and cafeteria plans. So ironically, while defined benefit plans have been complicated for employers to administer and expensive for them to maintain, they have not resulted in a significant increase in employee satisfaction, which is one of the core reasons for an employer to offer a benefit program in the first place.[2]

The State of Defined Benefit Pension Plan Funding

Mr. Chairman, we are all aware that defined benefit plan funding is a serious concern today. At General Dynamics nearly every one of our 48,000 U.S. employees is covered by a defined benefit pension plan. While recent market conditions have eroded our pension plans' funded levels, we anticipate that in one of our major pension plans no contribution is needed and in our other major pension plan any short-term cash contributions will be *de minimis* to our overall financial performance.

It is important, I believe, to state an otherwise obvious fact. Over the short-term, a pension plan's funding level can fluctuate widely. Thus, looking at a pension plan's funding level at a specific point in time is a very misleading indicator of the pension plan's ultimate ability to pay out participant benefits (whether accrued or anticipatory). In such an analysis, the only relevant factor is and will always be the un-

[1] The decline in sponsorship of defined benefit plans is in stark contrast to the increase in sponsorship of defined contribution plans, such as 401(k)s. According to the same official Department of Labor statistics, the number of defined contribution plans has increased from 462,000 in 1985 to 661,000 in 1997.

[2] Employee preference for account-based and more portable benefits has been a prime factor in the development of hybrid defined benefit plans, which are discussed below.

derlying financial strength of the employer sponsor. Simply put, pension plans do not go broke; employers do. An extremely poorly funded pension plan in the hands of a capable and profitable company sponsor, by law, cannot become the financial responsibility of the PBGC. The employer sponsor must manage any pension liability just as it manages any other business liability. Thus, it is the inability of the employer sponsor to continue to make cash contributions to an existing pension plan (often as a result of financial problems in its core business) that is the direct and proximate cause of any negative financial ramifications employees and retirees experience flowing from a PBGC distressed termination.

To put it another way, it is not the pension plan that can't pay its bills, it is the insolvent employer sponsor. Corporations, such as General Dynamics, routinely enter into long-term business contracts, often creating as part of these contracts, liabilities far in excess of those created by a pension plan. Corporations must manage these liabilities to survive. But, the principal difference between the financial obligations assumed by a corporation under a business contract and those it would assume under a defined benefit plan is the much greater clarity and predictability in a business contract, of the employer's ultimate financial obligations, and particularly, any cashflow requirements. In the opinion of the Council, until Congress is prepared to adjust federal law to provide rational and flexible cash-flow requirements in funding pension plans, employer sponsors will continue to remove them from their benefit programs. The predictability and flexibility of the cash-flow requirements is one of the great attributes driving the explosion of 401(k) and other defined contribution plans. The same attribute is needed in the defined benefit pension area.

The Council believes that the swing from the abundant funding levels of the 1990s to the present state of increasing deficits for many plans is due in large measure to the counterproductive pension funding rules adopted by Congress. Over the nearly 30 years since the enactment of the Employee Retirement Income Security Act (ERISA), the Congress has alternated between strengthening the pension plan system and limiting the revenue loss from tax-deductible pension contributions. Beginning in 1986, Congress limited the ability of companies to make nondeductible contributions and lowered the maximum deductible contribution. In 1997 and after, some relief was provided, but the overall result is that our laws and regulations strongly encourage employers to keep their plans as near as possible to the minimum funding level instead of providing a healthy financial cushion above that level. By 1995, only 18 percent of plans had a funded ratio of assets over accrued liabilities of 150 percent or more as compared with 45 percent in 1990.[4]

The result has been that companies sponsoring defined benefit plans have experienced a dramatic shift in funding. During much of the 1990s, the popular press regularly reported on the pension funding holidays experienced by a number of large employers as if these "holidays" presented employers with a financial windfall at the expense of employees. Yet what was never reported was the simply fact that these contribution holidays were most often not a matter of employer choice; rather the internal revenue code imposed heavy tax penalties on employers that made additional contributions during a contribution holiday. Many suspected that plans experiencing these policy-induced funding holidays would eventually confront a harsh reality when funding levels declined. That has proven to be very true. As one observer presciently noted in 1996:

> These contribution holidays created by OBRA 87 ultimately may prove to be a narcotic that will signal the death knell for some defined benefit plans. It is one thing for a company to see its annual contributions to its pension program rising by a couple of percentage points from a starting contribution level of 5 or 6 percent of payroll over a decade as its work force ages. It is quite another to have the contribution rate jump from nothing for several years to 7 or 8 percent of payroll. . .With such precipitous changes in plan funding requirements, some sponsors will not continue to support their plans.[5]

The Council believes that it is time for this Committee and the Congress as a whole to reexamine the rules for plan funding. It makes absolutely no sense that companies were not able to provide a strong financial cushion in times of economic plenty, and it is counterproductive to the overall economic health of this country that companies that are struggling to put scarce capital to productive use in the current downturn are being saddled with exorbitant required pension contributions.

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[4] Table 11.2, EBRI Databook on Employee Benefits, 1997, 4th Edition, The Employee Benefits Research Institute, Washington, D.C.

[5] Schieber, Sylvester J. 1996. "Proposals for Retirement Policy Reform: Ensuring Our Workers' Retirement Security." Testimony before the Senate Labor and Human Resources Committee Aging Subcommittee, Washington, D.C.

The common sense approach would be to alter the pension funding rules so that employers can fund their plans in times of economic strength and weather economic downturns without imposition of extreme funding requirements.

Tied up in discussions of the current state of plan funding is the financial condition of the Pension Benefit Guaranty Corporation. As you know, Mr. Chairman, the PBGC's 2002 Annual Report showed the agency in a deficit position for the first time since 1995. In urging caution and prudence in responding to the PBGC's current situation, I want to underscore that the Council has always predominantly represented companies with very well-funded plans. For example, our membership does not include any companies in the steel industry. As an organization representing premium payers who support the PBGC system, the Council has been at the forefront of past Congressional efforts promoting strong funding standards that ensure that the weakest plans would not be able to terminate their plans and impose their liabilities on the rest of the PBGC premium payers. Simply stated, the Council has no incentive to trivialize any problems at the PBGC that will come back to haunt us if other companies are not able to keep their promises to their retirees.

Thus, while the deficit revealed in the 2002 annual report is certainly to be considered very seriously, it does not necessarily indicate an urgent threat to the PBGC's viability. Indeed, the PBGC operated in a deficit position throughout much of its history. Nor does the shift from surplus to deficit over the course of one year suggest the need to change our pension funding or premium rules in order to safeguard the health of the PBGC. In particular, the Council is unlikely to support any proposal that would unwisely penalize prudent and proven plan asset allocation strategies or firms undergoing financial stress. We note that, as the agency stated in its report, the insurance program's total assets are in excess of $25 billion and it should be able to meet current and expected obligations for years to come.

Certainly if the financial position of the agency continues to decline in forthcoming years, the Council would join with policymakers and all other stakeholder groups to re-examine the PBGC's financing structure and ensure that a disturbing situation does not become a crisis. The financial condition of the PBGC should, of course, be monitored closely. At this point in time, we believe the best way to ensure the agency's financial position is to keep as many employers as possible committed to the defined benefit system. The urgently needed policy changes we are advocating today will help achieve this aim and ensure that the PBGC continues to receive a steady stream of premium income from defined benefit plan sponsors.

Pension Interest Rate Reform

Clearly the action most urgently needed to improve the health of the defined benefit system and stem the increasing number of defined benefit plan terminations is for Congress to enact a permanent replacement for the 30-year Treasury bond rate currently used for pension calculations.

Under current law, employers that sponsor defined benefit pension plans are required to use 30-year Treasury bond rates for a wide variety of pension calculations. Yet the Treasury Department's buy-back program and subsequent discontinuation of the 30-year bond has driven rates on these bonds to a level significantly below other conservative long-term bond rates. The result has been an artificial inflation in pension liabilities, often by more than 20 percent. As a result of these inflated liabilities, employers confront inflated required pension contributions and inflated variable premium payments to the PBGC. Due to the nature of the pension funding rules, where required contributions do not increase proportionally with increases in liabilities and decreases in funding levels, a number of employers face dramatic increases in their pension funding obligations.

The low 30-year Treasury bond rates have the same inflationary effect on lump sum payments from defined benefit plans that they have on the funding and premium obligations. In other words, the low 30-year bond rates have produced artificially inflated lump sum payments to departing employees. While these inflated lump sums may appear to redound to the benefit of the affected employees, the reality is that the drain of cash from plans as a result of these artificially inflated payments jeopardizes the financial position of the plan. Artificially inflated lump sums also deter employees from taking their benefit in an annuity form of payment, with the protections such form offers against spousal poverty and outliving one's financial resources. The cold reality is that departing employees are taking a benefit payment which is far greater than what the plan had been expected to pay. This forces the employer sponsor to make higher cash contributions thus driving up the plan's cost. The higher the cost of the plan, the greater the visibility within the company's internal budget environment and the greater the pressure to justify the plan's cost/benefit to the company as a whole.

The financial ramifications of the low 30-year bond rates have led increasing numbers of employers to freeze their defined benefit plans. Such freezes result in no additional pension accruals for current workers and no defined benefit program whatsoever for new hires.

Congress included short-term relief from inflated funding and premium requirements in the Job Creation and Worker Assistance Act of 2002. The Council wishes to thank you, Mr. Chairman, and Senator Baucus for your leadership in providing assistance, which gave employers some short-term but quite meaningful relief. As you know, however, this relief was not comprehensive in nature and expires at the end of this year. It is therefore imperative for Congress to enact *permanent* and *comprehensive* pension interest rate reform as soon as possible. This effort must involve selection of a substitute long-term interest rate for use by pension plans in lieu of the 30-year Treasury bond rate. Recently, in letters submitted to you, Mr. Chairman, and Ranking Member Baucus, the Council outlined a set of principles that should guide legislative reform of the 30-year Treasury bond interest rate for pension calculations. The key principles are as follows:

- **Adopt a Comprehensive Solution.** It is imperative that permanent interest rate reform revise the rate for *all* pension calculations required by the Internal Revenue Code (Code) and ERISA that are currently dependent on the 30-year Treasury bond rate. This comprehensive replacement of the 30-year Treasury bond would affect not only pension funding and premium calculations but also calculations affecting the valuation of lump sums and maximum benefits payable from defined benefit pension plans.
- **Use a Consistent Rate.** It is important that the same new benchmark be used for all of the Code and ERISA pension calculations currently dependent on the 30-year Treasury bond. Use of differing interest rates for different pension calculations (particularly for funding and lump sum purposes) could create severe financial instability in plans.
- **Select a Benchmark that Tracks the Return on a Conservatively Invested Portfolio.** We recommend that the new benchmark track the returns expected on a pension plan portfolio conservatively invested in long-term corporate bonds. Such a benchmark is one that the PBGC could meet or exceed through its own investing in the event that it assumes the liabilities of the pension plan.
- **Use a Blend of Corporate Bond Indices as the New Benchmark.** The most effective way to track the return of a portfolio conservatively invested in corporate bonds is to select an actual corporate bond index as the replacement for the 30-year Treasury bond rate. To avoid dependence on a single bond index and to replicate the breadth of the long-term corporate bond market, we recommend that the substitute for the 30-year rate be a blend of several different leading corporate bond indices (giving the Treasury Department flexibility to modify the specific component indices if necessary).
- **Use the New Rate for Lump Sums but Provide a Transition Period.** As noted above, the current law requirement to use the very low 30-year Treasury bond rate to value lump sums artificially and substantially inflates the value of these payments. This inflationary effect has contributed to the large number of pension plan participants who take their benefits in lump sum rather than annuity form. (The low 30-year Treasury bond rates have no inflationary effect on the value of plan annuities.) This artificial encouragement of lump sums—and artificial discouragement of annuities—is unsound retirement policy. Participants should be encouraged to select the plan distribution option that works best for them and their families and should not be given an artificial economic incentive to choose one over the other. That being said, the switch to the new interest rate should be phased in so that lump sum values are not changed precipitously for participants on the verge of retirement.
- **Preserve the Existing Interest Rate Averaging and Corridors.** Given the urgency of enacting a replacement benchmark for the 30-year Treasury bond, we recommend that the existing interest rate averaging mechanisms and corridors generally be maintained. Such an approach—in which the new blended corporate bond index is plugged into the existing statutory structure as a replacement for the 30-year bond rate—is the simplest approach and will facilitate prompt enactment of permanent reform.

We cannot over-emphasize the urgency of enacting this permanent, comprehensive reform nor the degree to which achieving this reform is related to stemming the decline in defined benefit plans. Action is needed by late spring in order to convince employers currently struggling with the difficult decision of whether to freeze or terminate their plan that help is on the way. Uncertainty about what the future required interest rate will be is also contributing to stock market instability as com-

panies cannot accurately predict their future pension liabilities and costs. The Council is committed to working with Congress and with groups from across the ideological spectrum to enact the permanent, comprehensive pension interest rate reform so necessary for defined benefit plans to remain viable.

Making the 2001 Pension Reforms Permanent

The Council is very gratified that in recent years Congress has recognized disturbing trends in defined benefit plan sponsorship and has begun to establish a more supportive policy environment for defined benefit pensions. Mr. Chairman and Ranking Member Baucus, you led these efforts with the Retirement Security and Savings Act of 2001 (S. 742 in the 107th Congress), which was ultimately enacted as part of the Economic Growth and Tax Relief Reconciliation Act of 2001. This legislation contained a number of very positive changes to the rules governing defined benefit plans. Correcting a series of past revenue-driven restrictions enacted by Congress, the Grassley/Baucus legislation repealed an artificially low cap on pension funding that had complicated pension budgeting and financing. It also increased the benefits that can be earned under—and paid from—qualified defined benefit pension plans so that these plans remain an attractive vehicle for employers to sponsor in our voluntary pension system. The Grassley/Baucus legislation also simplified a number of the most complex rules applicable to defined benefit plans, making these plans somewhat easier to administer, particularly in the context of mergers and acquisitions.

However, these pension changes included in the 2001 tax law need to be made permanent. This step will encourage and support defined benefit pension plans. Sound pension policy depends upon truly long-range planning and budgeting, for both employees and employers, and this is difficult to achieve given that all of the recent positive reforms are scheduled to evaporate come 2011. Consistency and supportiveness have too often been lacking in our nation's policy toward defined benefit pension plans, but by making the 2001 pension changes permanent, Congress can realize these goals and help to restore the health of our nation's defined benefit system.

Unfinished Pension Reforms from the Pension Reform Legislation

Additional changes to our pension laws that would aid defined benefit pensions were contained in the Grassley/Baucus pension legislation but were not enacted as part of the final 2001 tax law due to application of the Byrd Rule. Mr. Chairman, you and Ranking Member Baucus included these reforms in the National Employee Savings and Trust Equity Guaranty Act that was passed unanimously by this Committee last July. These reforms would make defined benefit plans a more attractive vehicle for small employers through pension insurance premium relief and simplified reporting. They would create fairness for defined benefit plan sponsors by allowing the PBGC to pay interest on premium overpayments. Finally, they would help to simplify and rationalize defined benefit plan administration through a number of regulatory reforms. We encourage you to enact these important remaining items from the Grassley/Baucus pension legislation this year in order to take another important step to support and encourage defined benefit pensions.

Hybrid Plan Clarification

One notable bright spot in the defined benefit plan landscape in recent years has been the development of what are known as hybrid defined benefit plans, the most common variety of which is the cash balance plan.[6] These plans have proven popular with employees and employers alike. While they offer the benefits of a traditional defined benefit plan (employer funding and risk-bearing, federal guarantees, the option of annuity benefits), they do so in an individual account form that is more easily understood and therefore more easily integrated into the employee's overall retirement planning. Cash balance plans also offer the benefit of portability since benefits can be rolled over to an employee's next workplace retirement plan or to

[6] The cash balance design combines features of a traditional defined benefit pension with those of a defined contribution plan such as a 401(k), hence the term "hybrid." In a traditional defined benefit plan, an individual's pension is generally determined by a formula incorporating the employee's years of service and pay near retirement. The benefit in this traditional pension is expressed in the form of a lifetime annuity (stream of income) beginning at normal retirement age, which is typically 65. In a cash balance plan, an individual's pension is generally determined by an annual benefit credit (typically a percentage of pay) and an annual interest credit (an annual rate of interest that is specified by the plan). These benefit and interest credits are expressed as additions to an individual's cash balance account. These accounts grow over time as the benefit and interest credits accumulate and compound. Benefits in a cash balance plan are ultimately paid out in the form of a lifetime annuity or a lump sum.

an Individual Retirement Account. In addition, they offer a more even accrual pattern than traditional defined benefit plans (where significant benefit accruals are dependent on long service, producing disappointing results for employees who switch jobs several times during their careers). The bottom line is that the transparency, portability and level accruals of cash balance plans often make these hybrid defined benefit plans a better fit for the retirement needs of today's mobile workforce than the traditional defined benefit pension.[7] In addition, unlike defined contribution 401(k) plans, these hybrid plans do help support the PBGC system through regular premium payments.

Unfortunately, the rules applicable to defined benefit plans have not been updated to reflect the development and adoption of hybrid pension plans, leaving a number of pressing compliance issues regarding hybrid plans unresolved. In recent months, the relevant regulatory agencies, led by the Treasury Department, have begun administrative actions to address these unresolved issues.

We salute the agencies for their focus in this critical area and for their commitment to resolving these complex but vitally important issues. Notwithstanding the controversy associated with some of these hybrid plan issues, we urge Congress and the members of this Committee to allow the pending regulatory processes to continue. Hybrid plans are a source of real vitality in our defined benefit system today and have proven themselves to be the most effective way to deliver defined benefit plan advantages and protections in a way that meets the needs of today's mobile employees. We must arrive at a legal regime that encourages these plans through rules that acknowledge their unique features.

The Next Generation of Pension Reform

With the enactment of the many positive Grassley/Baucus pension reforms as part of the 2001 tax law, the Council has spent a good deal of time over the past year developing additional recommendations to further strengthen and expand the employer-sponsored retirement system. A number of these recommendations focus on ways to revitalize our defined benefit system and many of the defined benefit reforms I have already discussed today top our list of recommendations. Thus, we believe achieving permanent and comprehensive pension interest rate reform, making the 2001 pension reforms permanent, enacting the unfinished Grassley/Baucus pension changes, and allowing the regulatory process regarding hybrid plans to continue are the most important steps Congress can take to improve the health of our defined benefit system.

Yet there are other reforms that the Council believes would help strengthen defined benefit pensions. Let me share a few with you today.

- First, the Council believes Congress should help to make defined benefit pension plans a more useful mechanism for the financing of retiree medical coverage. Pension benefits are often used to meet health costs in retirement and we believe certain tax changes would help employees do this more efficiently. At many companies today, employees are asked to bear a share of the cost of retiree medical coverage. Yet if these employees are receiving a pension benefit and wish to pay their retiree medical premium with these funds, the position of the Internal Revenue Service appears to be that these workers must pay tax on the pension benefit and then pay the premium with after-tax dollars. We recommend that Congress allow employees to direct the appropriate portion of these pension payments to pay retiree medical premiums on a pre-tax basis (as active employees may do with salary to pay health premiums). This will allow employees to pay these premiums with pre-tax dollars, helping to alleviate one of the primary financial pressures faced by many older Americans.
- Second, the Council believes that a legislative solution is necessary to address the growing administrative burdens attributable to "lost participants", *i.e.*, participants with relatively small benefits who cannot be located by plans. The cost for plans of maintaining records of these benefits and searching for the participants is significant, and a solution needs to be found. The Council believes that one option to explore is a material expansion of PBGC's missing participant program to apply to plans that have not terminated.
- Third, the Council recommends further simplification of the many complex rules governing defined benefit plans, many of which achieve little from a policy per-

[7] Congress devoted significant attention to conversions from traditional defined benefit plans to cash balance plans during the 106th and 107th Congresses. It was understandably concerned about the information employees received regarding these conversions and how certain, discrete groups of workers were affected by the change in plan design. These concerns led to enactment of an expanded notice requirement as part of the 2001 tax law, which will ensure that all employees receive the information they need to understand these conversions and the effect on their pension benefits.

spective but can make pension plan administration both more complicated and more costly.[8]

The Council hopes to work with you Chairman Grassley and Ranking Member Baucus, and with other leaders in Congress to see these additional defined benefit reforms included in upcoming pension reform legislation.

Pension Accounting

Before closing, we would like to raise one emerging issue that could have profound consequences for the U. S. defined benefit pension system. That issue involves the accounting treatment of pension income and expense on company financial statements. The current rules governing pension accounting have been criticized by some and are under review by the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB).

In particular, these critics attack the amortizing of pension asset gains and losses over time and advocate for immediate recognition of asset and liability experience. The Council is concerned that changes to the current accounting rules for pensions may present a serious threat to the employer-sponsored defined benefit pension system. Under the current accounting standard for determining pension cost, reported expenses or income does not track with the actual experience during the particular year. Rather, expenses are allocated in a method designed to track the long-term nature of the pension obligation and income is estimated using expected long-term returns.[9] Critics claim that the use of smoothing techniques for expenses and an expected rate of return on assets unfairly reports pension income (or a lowered pension expense) at a time when asset values have actually declined. They recommend that companies adopt a 'mark-to-market' approach in which the full fluctuation in the value of the pension expense or income is reflected each year. Yet such an approach would create significant fluctuations in the value of pension expense and produce extreme and unnecessary volatility in the reporting of annual net income.

The IASB has initiated a project that, tentatively, would prohibit the use of smoothing techniques for pension accounting purposes, and the FASB is undertaking a review of SFAS 87 and its 'perceived deficiencies.' In addition, FASB plans to work closely with the IASB to harmonize accounting regimes.

There have been significant international repercussions from pursuit of the 'mark-to-market' approach. The accounting standard-setting body in the United Kingdom adopted Financial Reporting Standard 17 (FRS 17), which utilizes such an approach. Under FRS 17, projected benefit liabilities and the plan's assets are entered directly on the company's balance sheet. All annual changes to assets and liabilities are immediately recognized in the income statement. All U.K. companies were to comply by June 2003, but recently the compliance deadline was extended. In a recent survey by the National Association of Pension Funds, a British trade group, 75 percent of British pension funds responded that they are considering terminating their pension plans. Some employers have already begun terminating their plans

[8] What follows are several examples of defined benefit plan complexity in need of reform and simplification. Today when a defined benefit plan obtains from a participant a waiver of the qualified pre-retirement survivor annuity (QPSA) (with spousal consent) and the participant is younger than 35 years old, the plan must seek another waiver from the same participant (again with spousal consent) after he or she has attained age 35. Another example of needed reform is legislation to further facilitate the use of new technology in plan administration. This use reduces costs and improves accuracy, thereby clearly improving administrative efficiency. A final example is legislation that reduces unnecessary burdens on the many defined benefit plans that use base pay (or rate of pay) in their benefit formula. Current law requires such plans to perform complex testing not otherwise necessary. The Council would be pleased to share with interested members of the Committee our other recommended regulatory simplifications in the defined benefit area.

[9] In 1985, FASB adopted Statement of Financial Accounting Standards No. 87 (SFAS 87), which requires plan sponsors to allocate the cost of future retirement obligations over the working lifetime of employees in a reasonable manner. The purpose of SFAS 87 is to recognize the long-term nature of the pension plan, reduce short-term volatility in the annual expense, promote consistency over time and recognize the compensation cost of a pension over the employee's service. SFAS 87 requires plan sponsors to make a reasonable current estimate of pension costs. These are estimates because the actual pension payments may not be incurred for decades into the future because employees may work for 20 or 30 years into the future and then receive payments over an additional 20 or 30 years. In the process of making this valuation, pension asset investment performance is taken into account by using an estimate of the expected earnings. SFAS 87 does not require a specific expected rate of return to be used, but plan sponsors can determine a reasonable estimate in part based on historical performance and the plans investment philosophy. This estimate represents the expected long-term rate of return on the portfolio, i.e., it is not meant to be the expected return for the current year. Differences between the expected rate of return and the actual returns are then spread over average future service, and other techniques to smooth volatility are also employed.

and transferring their liabilities to insurance companies and others have just frozen the plans by not offering new accruals. FRS 17 is significant not only because it provides a glimpse of the likely effect on American pension plan sponsorship of adoption of a 'mark-to-market,' but because the former head of the U.K. accounting standards body responsible for FRS 17 is now chair of the IASB.

Sponsors of defined benefit pension plans understand that pensions are a long-term commitment. While a company can terminate a pension plan at any time, the operation of an ongoing pension plan is made with a long-term perspective in mind. Because of the long-term nature of a pension plan and because of the accounting requirement to place a current value on pension obligations that occur far into the future, the valuation determination must take into consideration the investment performance of assets over an extended period of time. As there is no reason to assign different rates of performance to different periods of time, the use of an average or smoothed asset return assumption is appropriate. Moreover, the use of such a smoothed expected rate of return enables orderly planning and somewhat predictable costs for the employer.

The use of an average expected rate of return does not mean that actual investment returns are ignored; full recognition of differences in the expected and actual experience is only delayed. Current expected rates of return reflect all possible outcomes, including the bull markets of the 1990s, and also take into account regular downturns in asset prices. Similarly, the rates of return used for pension plans in the 1990s did not then reflect the huge returns pension assets were actually earning at that time.

Shifting to an approach that immediately recognizes asset gains and losses would dramatically increase the variability of pension expense and produce significant new volatility in annual corporate income levels. As a result, plan sponsors may respond by shifting pension assets out of equities and into bonds. Such a move would result in the plan sponsor experiencing higher costs for maintaining the plan in the long-term because they would no longer be reaping the benefit of an equity premium in the asset returns. Even worse, many plan sponsors may react by terminating their plans because they simply cannot accept having corporate income levels subject to unpredictable and uncontrollable shifts in the value of pension assets.

Moreover, it is not clear how investors would gain from a 'mark-to-market' approach. Over the long-term, pension plan costs are generally a small part of total compensation, and the 'mark-to-market' approach does not reflect the long-term nature of the pension commitment. As one commentator noted, "the fact that a DB pension plan can be terminated and its assets and liabilities liquidated is no reason to value those assets and liabilities as if the plan were about to terminate. The logical extension would be that since the company could sell or liquidate every one of its components, all components should be valued at their sale or scrap value."[10] Markets and financial analysts have enough savvy and experience with SFAS 87 to enable reasonably accurate company valuations.

Conclusion

Mr. Chairman and Ranking Member Baucus, I want to thank you once again for calling this hearing on what the Council believes to be one of the most important components of our nation's retirement system and for examining some of the most important retirement policy questions we as a nation face today. The Council feels strongly that we must ensure that both traditional and hybrid defined benefit plans remain viable choices for employers so that companies can select the pension plan design most suited to the needs and wishes of their workforce. Defined benefit plans offer unique advantages for employees, but without prompt action by Congress we fear these plans will increasingly disappear from the American pension landscape.

Thank you very much for the opportunity to appear today and I would be pleased to answer whatever questions you and the members of the Committee may have.

PREPARED STATEMENT OF RON GEBHARDTSBAUER

The American Academy of Actuaries is the public policy organization for actuaries of all specialties within the United States. In addition to setting qualification standards and standards of actuarial practice, a major purpose of the Academy is to act as the public information organization for the profession. The Academy is nonpartisan and assists the public policy process through the presentation of clear, objective analysis. The Academy regularly prepares testimony for Congress, provides

[10] Klieber, Eric. J. "Pension Valuation Needs More Disclosure, Not A New Formula," *Contingencies*, September/October 2002, pp. 33–36.

information to federal elected officials and congressional staff, comments on proposed federal regulations, and works closely with state officials on issues related to insurance.

Chairman Grassley, Ranking Member Baucus, and distinguished committee members, good morning and thank you for inviting me to testify on "The Funding Challenge: Keeping Defined Benefit Pension Plans Afloat". My name is Ron Gebhardtsbauer, and I am the Senior Pension Fellow at the American Academy of Actuaries. The Academy is the non-partisan public policy organization for actuaries of all specialties in the United States.

My written statement covers five important issues for this hearing, namely:

(1) Problems of the current funding rules and the need for a quick permanent fix,
(2) Alternatives for discounting liabilities,
(3) Concerns with current lump sum rules,
(4) PBGC issues, and
(5) Allowing greater contributions in good years.

Background and Problem: Defined Benefit plans are beneficial to employees, employers, and the nation.[1] However, as you know, a problem in pension funding rules arose in 1998 due to Treasury bond rates becoming inordinately low. As pointed out in our 2001 paper on this subject,[2] the rules dramatically increased minimum pension contributions (to levels much higher than Congress ever intended), at a time when employers could least afford them.

Temporary Fix: Fortunately, Congress acted quickly in March of 2002 to remedy this problem by allowing employers to use a higher discount rate in 2002 and 2003 for determining their pension liabilities and PBGC premiums. However, the pension rules revert back to the inordinately low discount rates in 2004. Meanwhile, major financial decisions are being made today, which depend on what next year's pension contribution will be. In addition, bankruptcy judges are being forced to decide today whether employers can afford their pension plans in 2004. Courts may decide the employer cannot afford its pension plan, and later find out that the rule was fixed and the employer could have afforded the pension plan. Bad decisions can come from bad information. Thus, a permanent fix is desperately needed for the funding rules very quickly. Delaying the fix will continue the bad decisions being made in courts and on trading floors today.

Selecting an appropriate target: The first step to resolving this issue—and perhaps the most challenging—is to select an appropriate target. Any interest rate alternative should be judged based on the results it produces relative to this target. An appropriate target should:

- Produce contributions that will adequately address participant and PBGC security concerns without forcing ongoing companies to put more assets into their pension plans than needed,
- Avoid discouraging the formation of defined benefit plans because of overwhelming or unpredictable funding requirements,
- Avoid funding requirements that unnecessarily divert funds that could otherwise go to increasing other benefits and wages, retaining employees, or keeping the company from financial distress, and
- Result in appropriate premiums to support the pension risk assumed by the PBGC without increasing the PBGC's surplus to unnecessary levels.

Annuities and/or Lump Sum Values: Congress may have intended the interest rate used in current liability calculations to reflect a plan sponsor's cost of plan termination—the actual cost of annuities and lump sums. In OBRA '87 (the Omnibus Budget Reconciliation Act of 1987), Congress specified that the interest rate used should be "consistent with the assumptions which reflect the purchase rates which would be used by insurance companies to satisfy the liabilities under the plan." IRC section 412(b)(5)(B)(iii)(II). Note that the law uses the word "liabilities," and not "annuities." Thus, we are not sure why the IRS ignored the cost of lump sums in Notice 90–11. Lump sum amounts can be larger than annuity prices due to interest-rate requirements in IRC section 417(e). Our paper recommended that Notice 90–11 be revised to specify that benefit liabilities equal the lump sum amounts for participants expected to elect lump sums. Without this modification, plans can be underfunded when, as now, lump sums are greater than the value of the annuity using the current liability discount rate.

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[1] See my earlier testimony on the benefits of Defined Benefit plans at the June 20, 2002 hearing of the Ways and Means Subcommittee on Oversight on "Retirement Security and Defined Benefit Pension Plans" at http://www.actuary.org/pdf/pension/testimony—20june02.pdf

[2] See our paper, "The Impact of Inordinately Low 30-Year Treasury Rates on Defined Benefit Plans," which can be found at http://www.actuary.org/pdf/pension/treasurybonds—071101.pdf

It appears that, at the very least, Congress believed that interest rates inherent in annuity purchase prices and lump sums would be within the range specified by the new law for determining current liability (a 10 percent corridor on either side of a four-year average of 30-year Treasury rates). In fact, we note that the highest permissible discount rate by law has consistently been quite close to corporate bond rates, and above annuity discount rates. In 1999, when the highest pennissible discount rate fell below the corporate bond rate, Congress fixed it temporarily by putting it back up with corporate bond rates.

Alternatives: An Academy paper in 2002 provided three alternative discount rates for fixing this problem,[3] and they are set forth on the accompanying graph. They are:

- The pension plan's expected long-term rate of return (orange line)
- A high-quality long-term Corporate bond rate of return (blue line)
- Discount rates used in pricing annuities (green line)

The Academy's Pension Practice Council suggests that a smoothed average of either the bond or the annuity pricing rate would be appropriate for discounting liabilities for underfunded plans. The next 4 sections discuss these rates and the long-term Treasury rate (red line).

Expected Long-Term Rate of Return (Orange Line): ERISA (the Employee Retirement Income Security Act) has allowed the Enrolled Actuary since 1974 to choose a reasonable interest rate (taking into account reasonable expectations) for pension funding calculations. As you can see from the first chart, actuaries have chosen a long-term rate averaging around 8 percent for at least the last 15 years.

In the mid-1980's, PBGC noted that the funding rules, taken as a whole, were still allowing pension plans to be underfunded. The biggest problem was in the amortization periods (not the interest rates). The rules allowed pension plans to improve benefits frequently and pay for them over the next 30 years (even though retiree increases could be paid out faster than 30 years). Thus, benefit improvement could defund underfunded pension plans. Consequently, OBRA'87 changed the rules to not only shorten the funding periods for underfunded plans, but also to require a separate discount rate for the calculation based on the 30-year Treasury rate. The rules specified that the pension liabilities for this calculation (known as Current Liabilities or CL) be determined using a discount rate no larger than 110 percent of the 30-year Treasury rate, averaged over the prior 4 years (the brown line in the chart). As you can see, it was close to Corporate Bond rates and, in fact, was actually *larger* than the interest rates used by the average actuary at the time. You can also see that Treasury rates, annuity pricing rates, corporate bond rates, and the maximum allowable rate were closer back then.

Treasury Rates (Red Line): Why was the 30-year Treasury rate chosen? Among other reasons, the Treasury rate was easy to obtain, had durations similar to pension plans, and wasn't subject to manipulation (or, at least, that was the perception at that time). In addition, the rate was acceptable to employers for funding purposes because the law allowed use of 110 percent of the Treasury rate (which allowed a rate near corporate bond rates), and it was smoothed (by using a four-year average of the rate) so it would not cause excessively volatile contributions and was predictable in advance.

Today, the Treasury rate is used for detennining pension funding amounts, PBGC variable premiums, lump sum amounts, and many other pension items.[4] Unfortunately, the Treasury rates have fallen much more than corporate bond rates, annuity rates, and expected long-term rates.[5] For example, from 1983

[3] "Alternatives to the 30-year Treasury Rate" at www.actuary.org/pdf/pension/rate—17july02.pdf

[4] See a complete list on page 13 of our paper entitled, "Alternatives to the 30-year Treasury Rate" at http://www.actuary.org/pdf/pension/rate—17july02.pdf . We recommend that the discount rate be changed for every calculation of current liability (both the RPA94 version and the OBRA87 version) so that there is only one current liability number. There is no reason to have two versions.

[5] Why did Treasury rates fall so much compared to corporate bond rates? In August 1998, the CBO's Economic and Budget Outlook (ftp://ftp.cbo.gov/8xx/doc828/e&bO898.pdf) suggested that, for the first time in 30 years, the U.S. unified budget would show a surplus; and, in fact, that the surplus would continue forever. In other words the US started reducing its Treasury debt instead of increasing it. The law of supply and demand suggests that with reduced supply (and continued demand), prices will go up. Treasury bond prices did go up and their interest rates dropped. In fact, they dropped faster than corporate bond rates, and that has continued since then. This has continued, even as surpluses have turned to deficits, probably due to increased

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through 1997 Treasury rates were less than 100 basis points below corporate bond rates (except for 1986), but by the year 2000 they were 200 basis points below. In addition, we now know that Treasuries can be manipulated by the private sector and by the government. A major investment banking firm manipulated prices in August of 1991 and the Treasury showed it could manipulate prices in November of 2001, when it said it would stop issuing 30-year Treasuries. (By comparison, a Composite Corporate Bond rate would be much more difficult to manipulate. In fact, if corporate bond rates ever were manipulated, annuity prices would presumably be affected in the same way, and the resulting rates would still be appropriate.)

As we noted above, using the Treasury rate increases costs dramatically. Many employers based their decisions to have a pension plan on long-term expectations. If today's low Treasury rates are used to determine liabilities, they increase costs by about 50 percent over using long-term expectations.[6] This is what causes the dramatically higher lump sums and pension contributions.[7] In effect it says, this is what the contribution should be if the pension plan is invested solely in Treasury bonds.[8] The next section discusses the cost assuming the pension plan is invested solely in corporate bonds.

Long-Term High-Quality Corporate Bond Rates (Blue Line): Pension liabilities for the plan sponsor's financial statements are generally discounted using current Long-Term High-Quality Corporate Bond rates due to the requirement in FAS87 (Financial Accounting Standard #87) paragraph 44 and statements by the Securities and Exchange Commission.[9] If assets equal this liability, then benefits can be paid by the cash flows from bond coupons and maturity values of an immunized bond portfolio. This means that an employer could hedge its interest rate risk (i.e., it doesn't matter if interest rates change, the liabilities could still be matched by the bond cash flows).

If this discount rate is used, liabilities will be around 27 percent higher than if expected returns are used.[10] Thus, using this rate (in comparison to the expected return) improves benefit security for participants and means the pension plan is less likely to need trusteeship by the PBGC. A plan that is funded to this amount generally does not require the PBGC because, if additional amounts are needed, they are small, and employers have typically made the additional contributions in order to avoid distress terminations (which can be very complex and entail benefit cuts to employees). Even if this plan does qualify for a distress termination, the PBGC will generally not experience an economic loss because PBGC does not guarantee the full benefit, and it does not buy annuities. The PBGC, like employers, self-insures (i.e., doesn't buy annuities) in order to reap higher returns and avoid the larger expenses, risk margins and profit loadings of the insurance company.

Discount Rates used in Pricing Annuities (Green Line): The discount rates used in pricing annuities are very similar to the corporate bond rates, because when someone buys an annuity, the insurance company invests the money in corporate bonds (often with lower credit ratings of A and Baa, in order to reap the credit risk premium), private placements, and mortgages. A study for the Society of Actuaries by Victor Modugno suggested that these discount rates could be approximated by Bloomberg's A3 option adjusted corporate bond

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demand caused by investors turning from stocks and corporate bonds to the safety of Treasury bonds, and because of decreased supply in the wake of the government's decision in 2002 to stop issuing 30-year bonds.

[6] For purposes of these calculations, we assume that the plan is invested 60 percent in equities and 40 percent in bonds, and would yield approximately 200 basis points over corporate bond rates, and that the plan's duration is a typical duration of 12 (i.e., decreasing the interest rate by 1 percent would increase liabilities by 1.01 raised to the twelfth power or 12 percent). The 50 percent comes from (1 + 8.1 percent − 4.7 percent)−12 − 1 = 50 percent.

[7] Even though pension contributions for underfunded plans are determined using 105 percent of Treasury rates (except for 2002 and 2003), the lump sums are determined using 100 percent of Treasury rates, which affects contributions.

[8] Of course, pension plans are not invested solely in Treasury bonds. They are invested in equities and corporate bonds, with the expectation that they will earn a larger return over the long term. (Ibbotson data from the past 76 years shows that over any 20-year period, stocks have performed better than bonds.) Of course, that is not a guarantee, so employers have taken on a risk that the future may not be like the past.

[9] In fact, the highest permissible discount rate in the law has consistently beets quite close to this corporate bond rate. In 1999, when the permitted rate fell, Congress fixed it by putting it back up near the corporate bond rates.

[10] This assumes that expected returns would be around 2 percent greater than corporate bond returns. The 27 percent comes from 1.02−12 - 1 = 27 percent. See the second prior footnote for further details.

index minus 70 basis points (for the insurance company expenses, risk margins, and profits). The adjustment is less than 70 basis points if one uses the High Quality Composite rate suggested by ERIC (the ERISA Industry Committee). Using an annuity discount rate could increase costs by about one-third over expected returns (or about 6 percent over high-quality corporate rates).[11] A plan with assets equal to this liability amount would be able to buy annuities for everyone, and thus would be less likely to require the help of the PBGC. On the other hand, employers contend that they are self-insuring (like the PBGC) so that they can earn a risk premium from stocks and avoid paying for the higher insurance company expenses, risk margins, and profits.

Dynamic Process for Setting Discount Assumption: Determining insurance company prices is not an easy or exact science, and no one index will work forever without adjustment. Discount rates vary between insurance companies, and over time companies change their pricing methods, so it is difficult to fix a formula in law that is appropriate for all time. Our 2002 paper and a recent GAO report[12] both suggest that if Congress desires such a rate, it should allow for a dynamic process to set it. For example, if Congress carefully defines the rate in law to be the discount rate used in pricing the average annuity, a committee with annuity pricing actuaries, pension actuaries, investment professionals, and government actuaries could set the discount rate.

Alternatively, our paper also suggested that Congress could define the discount carefully in law and allow the plan's Enrolled Actuary to determine it. Either of these methods could also be used to seta high-quality long-term corporate bond rate.

Smoothing: As in our paper, we suggest policy-makers investigate reducing the 4-year smoothing rule for discount rates in IRC §412(b)(5)(B)(ii)(I) to something less, for example, 2year smoothing (e.g., the average of the monthly rate on the valuation date and the prior valuation date). Otherwise, if interest rates go back up quickly (as they did in the late 1970s and early 1980s), then plans would have to use a discount rate *lower* than Treasury rates to determine their contributions. (In other words, employers would have to increase their contributions even though the plans would have enough funds to buy annuities to cover all plan liabilities.) The Academy's Pension Practice Council believes that this suggestion would still produce funding requirements that are reasonably predictable in advance and have enough smoothing to satisfy sponsor concerns. However, we are concerned that this issue would slow down passage of this bill; further study is indicated. For example, it could take time for regulations to be proposed and finalized, and employers need to know now what the discount rate will be for 2004.

Yield Curves and Hedging: Some actuaries suggest using a current yield curve (i.e., using different rates for different periods in the future, not just one average long-term rate) so that volatility can be hedged by investing in certain asset classes. On the other hand, many other actuaries are concerned about the volatility that could ensue if a plan sponsor did not want to change its investment philosophy away from stocks. Thus, they prefer using a smoothed average rate. Therefore, our paper suggested that Congress not mandate a yield curve,[13] but rather allow for it. The IRC could accommodate both if plan sponsors could elect to use the then-current corporate bond yield curve. It will be interesting to see how many plans elect to use the yield curve. We do not expect that it would be many (at least initially). The use of a yield curve (which could have 30 or more rates) will take time to propose in regulations and finalize, and add complexity to an already very complex set of minimum funding rules (and it might not change the results appreciably, especially when the yield curve is flat). Clearly, it would be too complex for lump sum calculations,[14] and Congress might want to exempt small plans from the calculations or create simplified alternatives, such as one rate for actives and one rate for retirees.

Changing the discount rate and mortality table at the same time. It is widely understood that minimum funding calculations will soon be required to reflect an updated mortality table, which would further increase the required funding for pension plans. It makes sense to make any change in interest rates effective at

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[11] The 6 percent comes from (1 + 50bp) – 12 - 1 = 6 percent.

[12] The GAO (General Accounting Office) report, "Process Needed to Monitor the Mandated Interest Rate for Pension Calculations" is at http://www.gao.gov/new.items/d03313.pdf

[13] A yield curve has the advantage of pricing liabilities more like the financial markets would (lower discount rates for short duration liabilities). When the yield curve is steep, it would increase the liabilities of hourly plans with large retiree populations. However, we note that a more precise calculation might also use a blue-collar mortality table for the hourly plan, which could offset the effects of using the complex yield curve.

[14] See the reasons suggested on page 12 of our paper on alternatives located at http://www.actuary.org/pdf/pension/rate—17july02.pdf

the same time the mortality table is changed for funding, so that calculation methods only need to be revised once. In addition, since the change in the discount rate and the mortality table change the liability calculations in the opposite direction, they will offset the effects of each other.[15]

Retroactivity: Permitting a change in interest rates retroactively to 2001 could help some employers immediately by retroactively reducing the contributions that would have been required in that year and allowing the reduction in contribution to increase the credit balance. This increase in the credit balance could then be used to reduce the current-year minimum contribution, which could reduce the current severity of cash flow problems affecting employment, compensation, and other benefit issues (and it would increase government tax revenues). However, the retroactivity provision should be optional, so that employers do not have to incur the cost of revising past actuarial valuations or have to change their budgeting of contributions—or lose the deduction for contributions made in good faith on the basis then in effect.

Pension Calculations Affected: As in our paper, we encourage Congress to change the interest rate for every calculation of Current Liability. Replacing the reference to the 30-year Treasury rate in all of the RPA94 and OBRA87 calculations listed on page 13 of our "Alternatives" paper would increase consistency and simplicity. The use of multiple interest rates and multiple liability numbers are confusing to actuaries, employers, participants, and other interested parties in the general public, such as investors.

Changing the current liability interest rate would not affect certain other calculations, which policy-makers may wish to also consider, including:

- Lump sums under IRC section 417(e), maximum lump sums under section 415, and automatic lump sums under $5,000 under section 411(a)(11), which all use the 30-year Treasury rate;
- The projection of employee contributions under IRC section 411(c), which uses 120 percent of the federal mid-term applicable rate.

Lump Sums: There are reasons for using one corporate bond rate or annuity price (not a complex yield curve) in every place where the 30-year Treasury rate is currently used. For example:

- Simplicity—Only one rate is used, instead of the multitude of rates now used.
- Spousal benefits—The use of Treasury rates for determining lump sums makes the lump sum option more valuable than the Qualified Joint and Survivor Annuity. This conflicts with the original intent of ERISA—to encourage pensions to surviving spouses.
- Public Policy—The current rules mandating the Treasury rate make it impossible for plans to provide an actuarially equivalent lump sum. Thus, the economic decision to take a lump sum is not a neutral one. The worker can take the lump sum and buy a larger annuity with it (which they rarely do). Thus, the rules encourage workers to take lump sums, which may be viewed negatively from a public policy perspective, because more retirees will spend down their lump sum too quickly and end up falling on government assistance (Supplemental Security Income and Medicaid).
- Plan Funding—Each lump sum in an underfunded plan defunds the plan (i.e., the funding ratio is decreased), particularly if it is subsidized by the unusually low Treasury rate. In addition, plans will tend to be less well funded, because Notice 90–11 prohibits the subsidy from being included in the current liability calculation. This is not only a concern for participants,[16] but also for the PBGC.
- Increased Costs Beyond Amounts Intended—Plan sponsors have to contribute more funds to the plan because the low Treasury rate made lump sums larger (not because the employer decided to increase lump sums). Thus, the plan is more expensive than the employer originally intended.
- Obstruction of Bargaining Process—Due to the expense of paying larger lump sums, plan sponsors are less likely to make plan improvements suggested by workers at the next bargaining period. Thus, requiring the Treasury rate ignores the collective bargaining process and discriminates against participants that don't take lump sums. If employees were permitted to decide where the funds should go, staff in labor organizations have told us that bargainers would

[15] Changing from the 83GAM to the most recent mortality table RP2000 has the same affect as lowering the discount rate by up to 0.5 percent for males, 0 percent for females (because their mortality rates didn't improve), and 0.25 percent for unisex rates (if 50/50). Thus, changing the mortality table also justifies increasing the discount rate.

[16] For example, retirees of Polaroid are suing their former employer for paying the mandated, subsidized lump sums to recent retirees, because they are defunding the plan. This means the retirees will have their benefits cut down to the guaranteed benefit by PBGC.

probably use the funds to improve the benefit formula for all workers, instead of just for those workers who take lump sums.

Changing to a higher interest rate can reduce a worker's lump sum, so a transition rule may be helpful. For example, ERIC and ABC suggest phasing in the interest rate change over 3 years. Their phase-in could limit the increase in the interest rate to about 0.5 percent per year.[17] We note that Treasury rates have increased in the past, so this would not be the first time that lump sum interest rates have increased. The Treasury rate went up in the 1990's by more than 1 percent three times (i.e., 1994, 1996, and 1999). Furthermore, with this transition, a worker's lump sum may not go down. It may still grow because each year a worker gets additional service, pay increases, and their age gets closer to the Normal Retirement Age (NRA).[18] [19]

In addition, we suggest Congress simplify the incredibly complex calculations caused by §415(b)(2)(E) for maximum lump sums. One simple alternative suggested by ASPA (the American Society of Pension Actuaries) would be to use just one interest rate. Our paper suggested that it could be somewhere in the 5 percent to 8 percent range. The Academy has also suggested to the Treasury Department in the past that the rules could be greatly simplified by deleting the words "or the rate specified in the plan" in §415(b)(2)(E), so that the maximum lump sum would be the same in all plans (and the discount rate used above and below the Normal Retirement Age would be the same).

PBGC's Financial Status: Another item that policymakers need to consider whenever the funding rules are modified is the effect of the changes on the PBGC. The Academy's Pension Practice Council believes that increasing the discount rate to a corporate bond rate or annuity pricing rate helps the PBGC in the short term, because fewer plans will have to be trusteed by the PBGC (due to plan sponsors not being able to afford the artificially large contributions). It may also help PBGC in the long term, if it keeps more Defined Benefit plans around to pay premiums to the PBGC. By fixing the discount rate, Congress signals to employers its intention to keep Defined Benefit plans as a viable option for employer retirement programs. However, that statement comes with a caveat. Since increasing the interest rate reduces minimum contributions, there may be a need to review the funding and premium rules in the near future, particularly if PBGC takes on some more major losses over the next couple years in this current economic downturn.

Due to the triple whammy of plummeting stock prices, lower interest rates, and more bankruptcies, the PBGC has gone from a surplus of $10 billion just two years ago to a $3.6 billion deficit. However, the dollar amount of the deficit is not as relevant as the funding ratio, which is 90 percent. Each time the PBGC takes over a pension plan, it also takes over the plan assets. PBGC's assets are now over $31.5 billion[20] while its annual outgo is expected be around $3 billion. Thus, the PBGC will not have problems fulfilling its primary mission for a number of years to pay guaranteed benefits on time.

However, this discussion so far has only taken into account PBGC's past terminations. PBGC's financial status is intimately linked with how the airline industry fares over the next several years. The pension underfunding at several weak airlines exceeds $10 billion. In fact, PBGC's 2002 Annual Report forecasts that future claims could be twice the average of past claims—a clear signal that they may want to double premiums and/or tightening funding rules.

Risk-related PBGC Premiums: Recently, the PBGC floated the idea of charging higher premiums (or strengthening the funding rules) for plans that present more risk to them (e.g., plans with high levels of equities and plans sponsored by weak companies). These rules might be helpful to strong employers so that they would not have to subsidize weak employers. However, employer groups have not asked for these fixes, possibly because almost all plans have over 50 percent of their assets in equities. And many employers are wary of the second idea because they could

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[17] Unless all interest rates go up dramatically in the next 3 years.

[18] Every year participants get one year closer to their Normal Retirement Date (NRD), which means their lump sum increases by one year's interest rate (unless they are already beyond their NRD, in which case the lump sum can decrease).

[19] Another idea might be to freeze the lump sum dollar amount on the amendment date (using the accrued benefit on that date), so that the lump sum amount would not decrease, unless the old rules would have decreased it (e.g., due to the Treasury rate going up or due to the participant being beyond the NRA, or in the case where a large early retirement subsidy is in the lump sum). However, this could be a little more complex to calculate than the 3-year phase-in idea.

[20] This $31.5 billion amount includes the $6 billion in assets front probable plans in PBGC's FY 2002 annual report (such as Bethlehem Steel), because PBGC includes such liabilities in the report.

someday have lower credit ratings. In addition, implementing these risk-related premiums would raise many complex issues (in an area that is already overly complex). For example, the government might have to assign credit ratings to employers and that could lead to audits for misleading the PBGC's analysts. The PBGC would have to assign risk levels to stocks and bonds (and some bonds present more volatility and/or mismatch risk than certain stocks). Plan sponsors might seek ways to temporarily avoid the riskier investments on the measurement date, and if those rules were tightened it could hurt the markets when pension plans started selling equities.

Other Reforms: Other fixes could be:

(1) To make it more difficult for weak companies to increase benefits.[21]

(2) To address the cost of shutdown benefits (or to not guarantee them).

(3) To get contributions into the plans earlier. The PBGC tells us that pension plans frequently do not contribute in their last year when the PBGC takes over the plan. Thus, requiring sponsors of underfunded plans to make contributions by year end (or very soon thereafter) could help the PBGC. Employers might be amenable to this rule if quarterlies were eliminated. This could also enable quicker reporting of pension plan financial information, which would also be valuable to the PBGC and the markets, and be a step in the cause for greater clarity and transparency.

(4) To suspend the use of the credit balance when plans are very underfunded.

(5) To improve PBGC's standing in bankruptcy courts.

(6) To increase disclosure.

Hourly/bargained plans[22] are more likely to be underfunded than salaried plans, because:

(1) They are amended frequently to update benefit levels for inflation. These amendments can be funded over 30 years (even though the increased retiree benefits can be paid out much faster). If plans are very underfunded, they have to amortize benefit increases over 3 to 5 years by means of the deficit reduction contribution. One compromise might be to smooth out these rules so that there is not such a large cliff between them. Congress might consider reducing the 30-year period (FAS already requires companies to expense benefit increases over a much shorter period).

(2) When assets exceed current liability, the plan sponsor can't make a deductible contribution. (See below for a suggested fix.)

(3) They are more likely to be in industries that have large legacy costs payable to large retiree populations (in comparison to smaller workforces).

(4) They can experience large asset losses, and may find it difficult to amortize them over a small workforce, even if assets cover their retiree liability. Immunization of the retiree liability in underfunded plans could be discussed, but Congress would need to be careful about removing the flexibility plan sponsors currently have to invest pension assets in the way that best fits their plan and the everchanging economic conditions.

These are all very complex ideas and have far reaching implications for the pension world, so they should not be implemented until after major discussion and analysis.

Allowing Contributions in Good Years: An Academy task force has already met with the PBGC on simplifying funding rules. One fix that the Academy task force proposes would have helped companies that were not allowed to make deductible contributions to their pension plans in the late 1990s and now must make sizable contributions under deficit reduction contribution rules.

The paper recommends that employers be allowed to make a deductible contribution to their pension plans, even if assets are above 100 percent of current liability (CL). Currently, their contribution would also be subject to an excise tax. When in-

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[21] For example, charge a larger premium rate (on just the benefit increase) that is risk related, require faster funding (fund benefit increases faster than 30 years; FAS already requires employers to expense benefit increases over a much shorter period, and the Deficit Reduction Contribution rules already do that when the funding ratio is under 80 percent or 90 percent continually), or prohibit the benefit increases unless liens are provided as in §401(a)(29)—and just increase the 60 percent threshold to 70 percent or 80 percent.

[22] Some of these ideas might apply to both single and multi-employer plans, so the suggestions may also be applicable to both. In fact, having different rules for these hourly plans can set up arbitrage opportunities that some plan sponsors have tried to exploit. (Multi-employer plans need not pay variable premiums or Deficit Reduction Contributions.) Some of the reasons for the difference in the rules may be that the Multi-employer guarantees are smaller than those for Single employer plans, the PBGC multi-employer fund has a surplus, and it is more difficult for Multi-employer plans to change their funding in the middle of a bargaining period.

terest rates were higher, the full funding limit allowed a pension plan to have a margin above Current Liability (see second chart). That margin is also needed when interest rates are low, particularly for plans that are retiree-heavy and hourly plans, which can't easily advance fund their benefit increases. Congress could allow a contribution up to (for example) 130 percent of current liability minus assets. Alternatively, the definition of the Full Funding Limit could have (for example) 130 percent of current liability as a minimum.

We also note that there are strong incentives for companies to contribute more, and companies have learned a lot lately about the risks inherent in pension plan funding. Recent drops in the market have provided a good reason for employers to increase their funding margins and build a "cushion" to protect against adverse experience. Thus, companies may be more willing to contribute more than necessary in the future to avoid falling below certain key thresholds, if the law allows them a deduction (or at least doesn't penalize them with an excise tax for making nondeductible contributions). For example, if assets fall below the Accumulated Benefit Obligation, accounting rules may force a major hit to the company's net worth. If assets fall below the liability for vested benefits, companies must pay an additional premium to the Pension Benefit Guaranty Corporation (PBGC). If assets fall below 90 percent of current liability, contributions can increase dramatically.

A list of the penalties follows. If policymakers want to increase the incentives for funding, then a threshold for one of the penalties could be increased (e.g., the threshold for security).

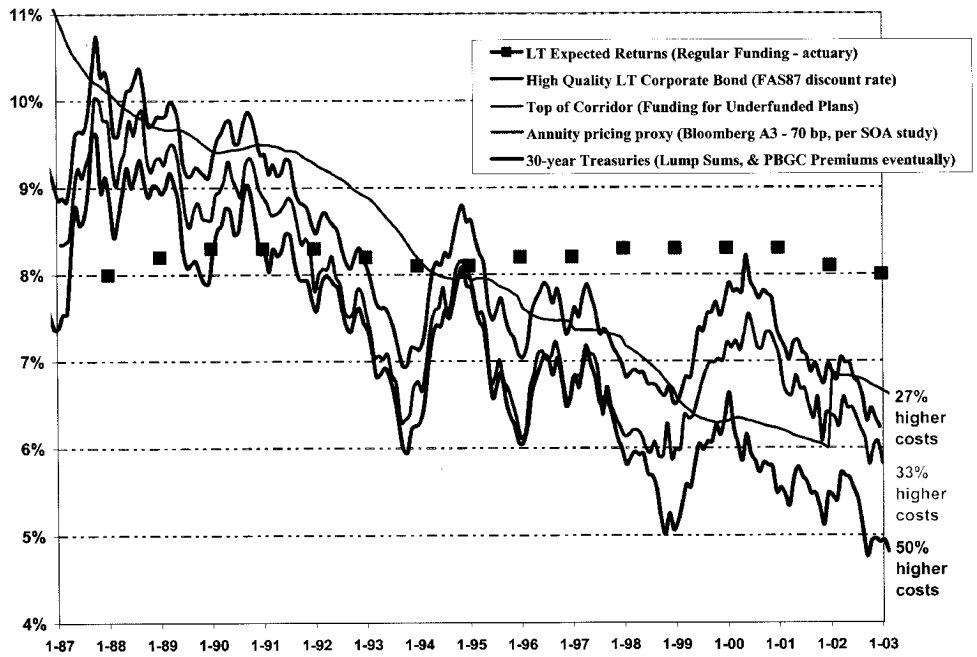
If the funding ratio falls below	Then
125%	No §420 transfer to the company post-retirement health plan Company can not use the prior year valuation
110%	Restrictions on the size of lump sums to the top 25
100%	Accounting rules may force a hit to net worth if unfunded ABO > $0 PBGC variable premiums are payable Companies must pay quarterly contributions PBGC files lien on company if missed contributions > $1 M PBGC financial filings required if underfunded over $ 50 M Must report certain corporate transactions to PBGC if underfunded Bankrupt firms can not increase benefits
90%	Additional deficit reduction contributions required Notice to employees with funding ratio & PBGC guarantees required
60%	Security required for plan amendments

We believe many employers will contribute enough to reach a key threshold margin in order to avoid these problems.

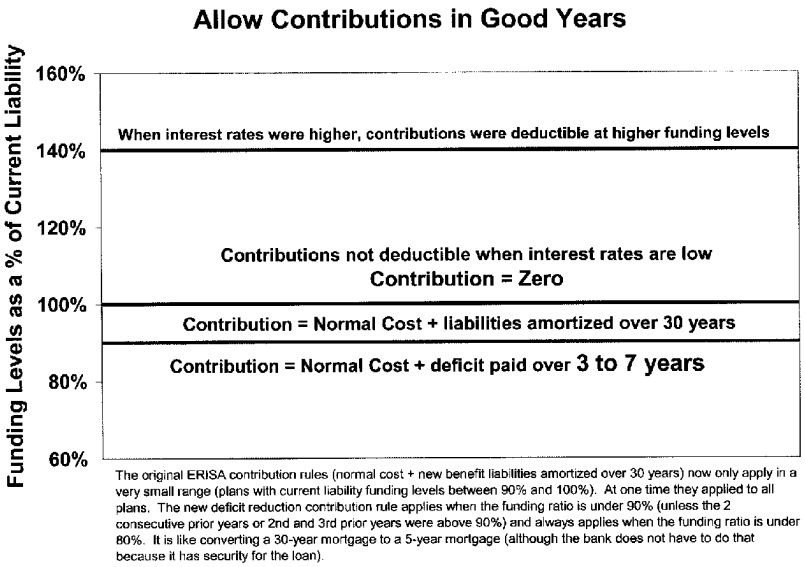
Being forced to fund when the plan sponsor cannot afford it and being precluded from funding when the plan sponsor can afford it is unreasonable, self-defeating, and difficult on the PBGC. We hope Congress will consider making this fix, which does not cause problems (because it is voluntary), except for reducing tax revenues. However, we don't believe that the revenue loss will be as large as might be expected because it may not be used heavily in the near future, and to the extent that it is used, it will reduce contributions in the future.

We at the American Academy of Actuaries hope that a permanent fix to the 30-year Treasury rate can be enacted quickly. In addition, we are also very interested in working with Congress and the PBGC to consider funding ideas further. Thank you for holding this hearing and inviting us to speak before you today.

Choices for Discount Rates



Choices for discount rates in paper by American Academy of Actuaries: Long Term Expected returns, HQ Corporate Bond returns, Annuity Prices, and Treasury rates. They produce the costs indicated (relative to LT Expected Returns used for funding), assuming an average pension plan (with duration around 12). The expected returns are from Watson Wyatt



PREPARED STATEMENT OF STEVEN A. KANDARIAN

Mr. Chairman, Ranking Member Baucus, and Members of the Committee:

Good morning. I am Steven A. Kandarian, Executive Director of the Pension Benefit Guaranty Corporation (PBGC). I want to thank you for holding this hearing and for the interest you have in the retirement security of America's workers.

This hearing is especially timely. During FY 2002 PBGC's single-employer insurance program went from a surplus of $7.7 billion to a deficit of $3.6 billion—a loss of $11.3 billion in just one year. This loss is more than five times larger than any previous one-year loss in the agency's 28-year history. In addition, we estimate that the total underfunding in the single-employer defined benefit system now exceeds $300 billion, the largest number ever recorded. I appreciate the opportunity to appear before you today to speak about these important issues.

STATE OF THE PBGC

PBGC was created as a federal corporation by the Employee Retirement Income Security Act of 1974 (ERISA). PBGC protects the pensions of nearly 44 million workers and retirees in more than 32,000 private defined benefit pension plans. PBGC's Board of Directors consists of the Secretary of Labor, who is the chair, and the Secretaries of the Treasury and Commerce.

PBGC insures pension benefits worth $1.5 trillion and is responsible for paying current and future benefits to 783,000 people in over 3,000 terminated defined benefit plans. As a result of the recent terminations of several very large plans, PBGC will be responsible for paying benefits to nearly 1 million people in FY 2003. Similarly, benefit payments that exceeded $1.5 billion dollars in FY 2002 will rise to nearly $2.5 billion in FY 2003.

NO FULL FAITH AND CREDIT: NO FEDERAL TAX DOLLARS

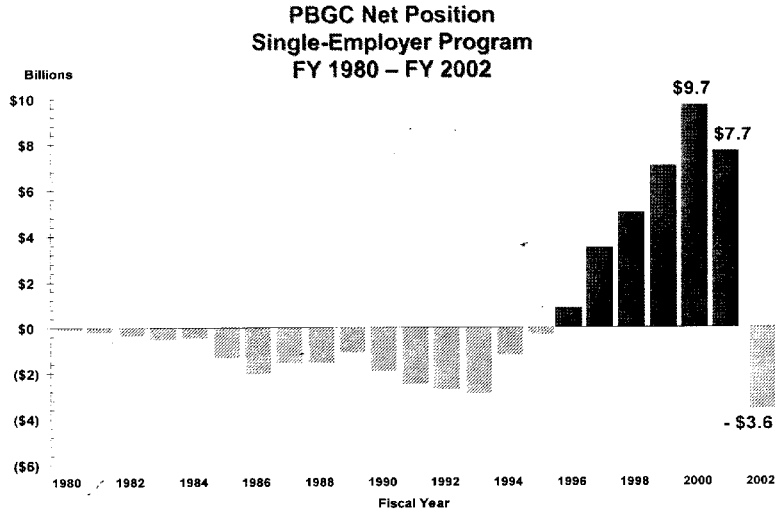
While PBGC is a government corporation under ERISA, it is not backed by the full faith and credit of the federal government. Moreover, PBGC receives no federal tax dollars. Instead, PBGC is funded by four sources: the insurance premiums paid to PBGC by defined benefit pension sponsors, the assets of pension plans that PBGC has trusteed, recoveries in bankruptcy from former plan sponsors (generally only cents on the dollar), and earnings on invested assets.

When PBGC takes over pension plans that are underfunded by billions of dollars, it is the premium payers—employers that sponsor defined benefit plans—who bear the cost. Financially healthy companies with well-funded pension plans end up subsidizing financially weak companies with chronically underfunded pension plans. As a result, over time, strong companies with well-funded plans may elect to leave the system. This potential for "adverse selection" could pose a real problem for the insurance program.

HEALTH OF PBGC'S PROGRAMS

PBGC operates two financially independent insurance programs, the larger single-employer program and a smaller program for multiemployer plans (i.e., plans set up between a union and two or more employers). The multiemployer program has been in surplus since 1980. The single-employer program, however, was in deficit for 21 years from 1974 until 1995.

For six years, from 1996 until 2001, the single-employer program was in surplus, reaching a surplus of almost $10 billion in FY 2000. The surplus grew substantially during these years because of PBGC's investment gains during the stock market boom and because the PBGC did not have to trustee any plans with large amounts of underfunding.



Data does not include restored LTV plans in 1986

During FY 2001 and FY 2002, however, PBGC's surplus rapidly deteriorated and has now disappeared altogether, leaving PBGC with a deficit of $3.6 billion. Our deficit was caused by the failure of a significant number of large companies with highly underfunded plans. These include the plans of the retailers Bradlees, Caldor, Grand Union, and Payless Cashways; steelmakers including LTV, Acme, Empire, Geneva, and RTI; other manufacturers such as Singer, Polaroid, Harvard Industries, and Durango; and Trans World Airlines. Mr. Chairman, pension claims for 2002 alone were greater than the total claims for all previous years combined. At current premium levels, it would take about 12 years of premiums to cover just the claims from 2002.

In December 2002, PBGC terminated the plans of two other major steel companies with extremely large underfunding: National Steel and Bethlehem Steel, both of which are included in the $3.6 billion deficit figure. In addition, in our most recent annual report, PBGC reported exposure to additional claims totaling $35 billion, which we categorize as "reasonably possible." Of this $35 billion, about half represents underfunding in airline and steel plans.

Over the longer term, exposure and expected claims are more difficult to quantify. However, we expect that our deficit may increase dramatically.

Large plan terminations with low funding levels drove PBGC into deficit, and additional large claims may increase that deficit. However, the current $3.6 billion dollar deficit, even though it is the largest in history, does not create an immediate liquidity problem for PBGC—we will be able to continue paying benefits for a number of years. But with $29 billion in benefit liabilities and only $25 billion in assets, we should not wait to put the insurance program on a sound financial basis. We should not pass off the cost of today's problems to future generations.

Recently, some have argued that, because PBGC is not in any immediate danger of running out of cash, there is no need to address the issue of pension underfunding. We believe this view is misguided.

Mr. Chairman, Congress heard the same argument in 1987 and again in 1994 when Congress strengthened pension security for workers. Without those reforms, workers and the PBGC would be in even worse shape today.

STATE OF THE DEFINED BENEFIT PENSION SYSTEM

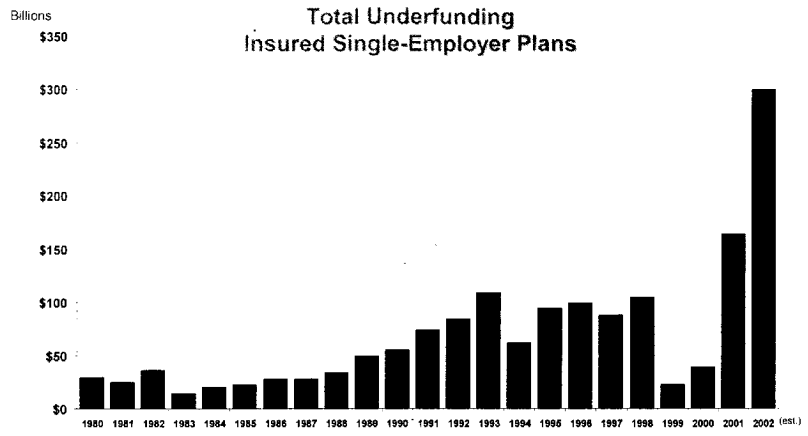
Defined benefit plans are. an important source of retirement income security for rank-and-file American workers. The defined benefit system is not in crisis, but there are structural problems that need to be addressed.

As you know, Mr. Chairman, our pension system is voluntary. In recent years, many employers have chosen not to adopt defined benefit plans, and other employers have chosen to terminate their existing defined benefit plans. Since 1986, 97,000 plans with 7 million participants have terminated. In 95,000 of these terminations

the plans had enough assets to purchase annuities in the private sector to cover all benefits earned by workers and retirees. The remaining 1,800 were PBGC terminations where companies with underfunded plans shifted their unfunded pension liabilities to the insurance program, resulting in benefit reductions for some participants since ERISA doesn't guarantee all employer-promised pension benefits.

Of the 32,000 defined benefit plans that remain ongoing, many are in our oldest, most mature industries. These industries face growing benefit costs due to an increasing number of retired workers, a problem compounded by increased competition.

At the same time, equity investments have suffered a large decline and pension liabilities have ballooned due to falling interest rates. As a result, underfunding in private sector defined benefit plans is now estimated to exceed a record $300 billion. Last year over 270 corporations reported to PBGC that they had pension plan underfunding greater than $50 million. This is more than three times the number of corporations that have reported to PBGC in any year in the past. In addition, about 150 major US corporations are now in bankruptcy, many of which have defined benefit plans.



Firms Presenting the Largest Claims
FY 1975 – Present

	Fiscal Year of Plan Termination	Claims (Billions $)	Covered Participants	Funded Ratio*
Bethlehem Steel	2003	$ 3.9	95,000	45%
LTV Steel	2002	1.9	79,600	56%
National Steel	2003	1.3	35,400	47%
Pan American Air	1991, 1992	0.8	37,500	31%
Trans World Airlines	2001	0.7	34,300	39%
Eastern Air Lines	1991	0.6	51,200	65%
Wheeling Pitt Steel	1986	0.5	22,100	27%
Polaroid	2002	0.4	11,400	65%
Sharon Steel	1994	0.3	6,900	21%

* Funded ratio at termination for PBGC benefits; participants lose additional benefits not covered by PBGC

During the last economic downturn in the early 1990s, the pension insurance program absorbed what were then the largest claims in its history—$600 million in underfunding for the Eastern Airlines plans and $800 million for the Pan American Airlines plans. Those claims seem modest in comparison to the plans we have taken in lately: $1.3 billion for National Steel, $1.9 billion for LTV Steel and $3.7 billion for Bethlehem Steel. Underfunding in some of the troubled airlines may be larger still.

With pension promises growing and with the percentage of plan underfunding remaining in the same range for a decade or more, the dollar amount of pension underfunding has skyrocketed. Meanwhile, PBGC's premium collections have remained flat at roughly $800 million a year. Raising premiums enough to cover losses of the size the PBGC endured in 2002 could prove counterproductive, driving the financially healthy companies out of the defined benefit system.

CHALLENGES FACING THE DEFINED BENEFIT SYSTEM

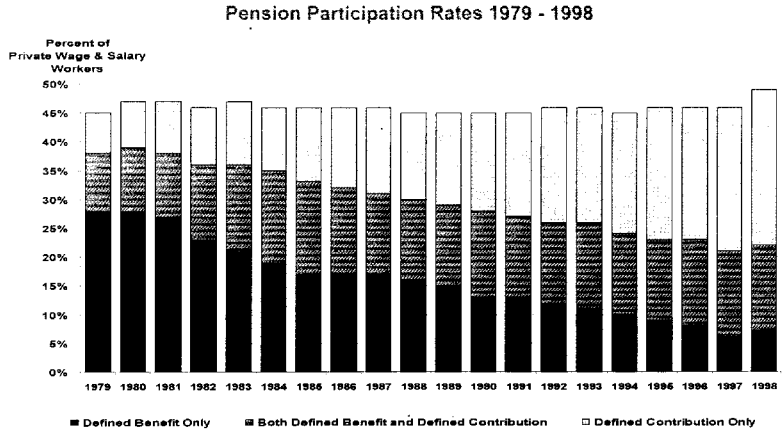
There are a number of challenges facing the defined benefit system, including the following:

The current funding rules are inadequate to ensure sufficient pension contributions for those plans that are chronically underfunded. To our knowledge, none of the defined benefit pension plans responsible for the $300 billion in underfunding is in violation of law. Companies with hugely underfunded plans have followed the funding requirements of ERISA and the Internal Revenue Code.

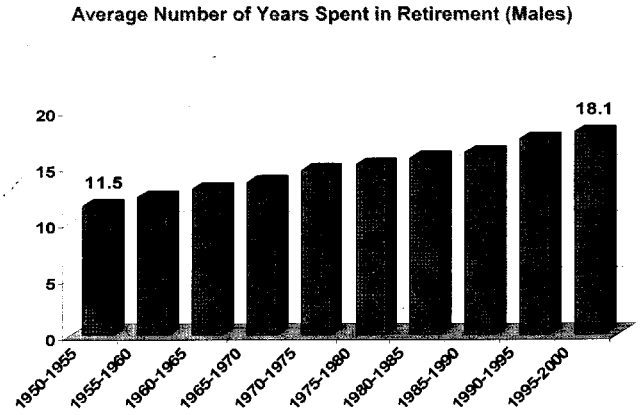
When PBGC trustees these underfunded plans, participants often complain that "there ought to be a law" requiring companies to fund their plans. Mr. Chairman, there is a law, but it is inadequate to fully protect the pensions of America's workers when their plans terminate. The funding targets are simply not high enough for the plans of companies at the greatest risk of termination. Allowing companies to compute contribution requirements based on asset and liability numbers that are averages of prior years can further defer funding. Finally, nothing in the funding rules requires companies with underfunded pensions to make annual cash contributions to the plan.

Another trend impacting the defined benefit system is increased in competitive pressures that have led companies to look at their entire cost structure. During the 1990's, some workers did not place a high value on their defined benefit plans, and the costs to plan sponsors have been volatile. As of result, many companies are increasingly unable to afford or unwilling to maintain defined benefit plans and are moving to 401 (k) and other defined contribution arrangements.

In addition, demographic trends have made defined benefit plans more expensive. With workers retiring earlier and living longer, plans must pay annuities for far longer. Today, the average life expectancy of the 65year old male has grown to 16.1 years, and the average age of retirement has dropped to 62. As a result, the number of years of retirement has increased from 11.5 in 1950 to 18.1 today, an additional seven years of retirement which must be funded.



Source: U.S. Department of Labor
Pension and Welfare Benefits Administration
Abstract of 1998 Form 5500 Annual Reports Winter 2001 - 2002

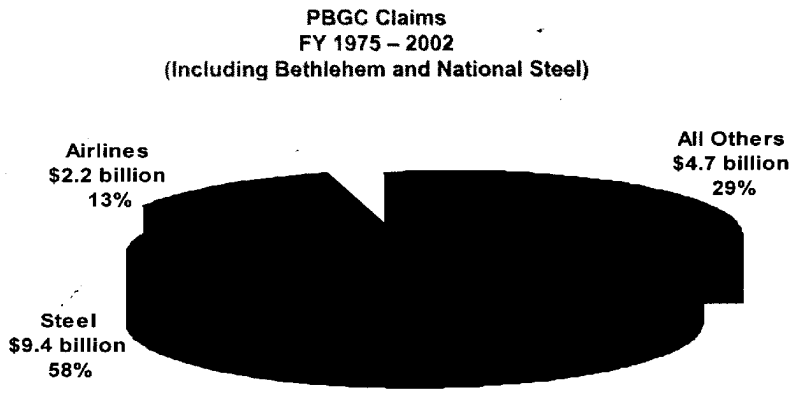


Another problem is that the current disclosure rules do not require timely data that would help participants and shareholders understand the funding status of plans and the consequence of pension underfunding. The current value of plan assets and liabilities is not transparent to workers, retirees, investors, or creditors. Timely, accurate data would allow the capital markets to inject some discipline into the system and allow participants to protect their interests.

Congress added new requirements in 1994 providing more timely data to PBGC and expanding disclosure to participants in certain limited circumstances, but our experience tells us those disclosures are not adequate. The information provided to PBGC is confidential, so its impact is limited. And the notices to participants do not provide sufficient funding information to inform workers of the consequences of plan termination. Workers in many of the plans we trustee are surprised when we have to tell them their plans are underfunded. They are also surprised to find that PBGC's guarantee does not cover certain benefits, including early retirement benefits not yet fully earned.

PROBLEMS IN THE STEEL AND AIRLINE INDUSTRIES

In addition to the issues affecting the defined benefit system as a whole, there are also challenges facing specific economic sectors, including steel and airlines. PBGC is watching these two industries closely because they have accounted for some 70 percent of the claims against PBGC but fewer than 5 percent of insured participants. Steel, with less than 3 percent of participants, has accounted for 58 percent of PBGC's claims, and the airlines, with about 2 percent of participants, have constituted 13 percent of claims.



Note: Historically, Steel has represented less than 3% of participants covered by PBGC and Airlines less than 2%.

Airline pension plans currently have about $18 billion in underfunding. Almost all carriers are losing money today. Two major carriers are currently in bankruptcy—US Airways and United Airlines—and several others are financially troubled.

To reduce its pension cots, US Airways asked PBGC (late in 2002) to terminate the company's pension plans, immediately restore those plans, and provide 30 years to fund them. PBGC does not have the legal authority to terminate and restore the US Airways plans. Moreover, we do not believe it would have been wise to grant the request even if we had the legal authority to do so.

We understand the financial difficulties many companies are facing and we are sympathetic to those workers who would suffer significant cutbacks if their plans were terminated. However, relaxing the funding rules for plans of companies in financial distress would set a dangerous precedent for the pension insurance program and put further at risk the integrity of the overall defined benefit system.

Furthermore, providing this special relief to US Airways would give it a competitive advantage over other airlines. It would also give other financially distressed companies a blueprint for evading the statutory funding rules at the expense of the pension insurance system and the 44 million workers it protects. Mr. Chairman, this is a slippery slope.

If US Airways, why not other financially troubled airlines? If airlines, why not companies in other industries?

POSSIBLE REFORMS

Mr. Chairman, we believe there are three basic options to deal with the problems facing the defined benefit system.

First, we could do nothing and hope that the system will self-correct. This approach risks putting off today's problems to the next generation.

Second, Congress could enact a large, across-the-board premium increase, a change that seems unfair to those well-funded plans that are already subsidizing the system.

Or third, we could look at how best to move underfunded plans to appropriate target funding levels over a reasonable period of time.

In an effort to improve pension security for workers and retirees by strengthening the financial health of the defined benefit system, PBGC and the Departments of

Labor, Treasury, and Commerce are currently examining a number of possible solutions. These ideas are still in the developmental stage, but I would like to share with you some of our concerns.

Mr. Chairman, under current law benefits can be increased with little new funding as long as the plan is at least 60 percent funded. We are examining whether the 60 percent threshold should be increased. In too many cases, management and workers in financially troubled companies may agree to increase promised pensions. The cost of wage increases is immediate, while the cost of pension increases can be deferred. When plans of financially weak companies terminate, the pensions may be fully protected by PBGC's guarantee, although they have not been funded.

Another problem is that under current funding rules, a company with an underfunded plan may not be required to make an annual pension contribution. Under current law, many of the companies that had plans that were highly underfunded when trusteed by PBGC did not have to make contributions for many years prior to termination. In addition, funding and premium rules do not take into account a company's financial health and the resulting risk to the pension protection system.

Still another concern is the need for fuller disclosure of the funded status of pension plans. For example, only participants in plans below a certain funding threshold receive annual notices of the funding status of their plans, and the information provided does not reflect what the underfunding likely would be if the plan terminated. In addition, PBGC is prohibited from publishing termination liability data.

A final concern is the financial integrity of the pension insurance program. A strong benefit guarantee program is necessary to assure the long-term stability of the defined benefit pension system. To discourage moral hazard, ERISA provides for the sharing of risk by companies and participants as well as PBGC. To fulfill this sound principle, we must work to better link guarantees to the funding of benefits. For example, current law requires that PBGC in many cases pay shutdown benefits—which are subsidized and supplemental early retirement benefits triggered by plant shutdown or permanent layoffs—even though funding of these benefits does not begin until the shutdown or layoff has occurred. These shutdown benefits—which are similar to severance benefits not guaranteed by PBGC—account for billions of dollars of PBGC's unfunded liability exposure.

Finally, PBGC is examining its premium structure in light of the massive increase in claims. Under the current structure, premiums are computed based solely on the number of plan participants and the dollar amount of pension underfunding. The formula does not attempt to reflect the risk of a claim from a given plan. In general, however, we continue to believe that well-funded plans represent a better solution for participants and the pension insurance program than any changes we could make on the premium side.

CONCLUSION

Mr. Chairman, we are working to find ways to improve pension security for workers and retirees by strengthening the financial health of the voluntary defined benefit system.

Former Representative J.J. [Jake] Pickle was one of the chief advocates of the 1987 and 1994 reforms. His comments on the floor at the time the 1994 pension reforms were enacted are something we should remember:

> "I note that I would have personally preferred to make these reforms much stronger, and I caution my colleagues that they should not expect these reforms to immediately solve all the problems caused by underfunded pension plans. In order to overcome strenuous objections by certain automobile, steel, and airline companies we have included very generous transition rules for companies which have maintained chronically underfunded pension plans . . . . I deeply regret that we have given another reprieve to companies who have shirked their pension obligations for the 20 years since the passage of [ERISA]."
>
> Congressional Record, 103rd Cong., 2nd Sess., H11477, Nov. 29, 1994.

Mr. Chairman, the existence of the pension insurance program creates moral hazard, tempting management and labor. at financially troubled companies to defer their pension obligations. This unfairly transfers the cost of underfunded pension plans to responsible companies and their workers. These financially strong companies at some point will have had enough, and will exit the defined benefit system, leaving only those which pose the greatest risk of claims. We need to make sure the incentives in the system are changed so this doesn't happen.

Again, I thank the Chairman for inviting me to testify this morning. I will be happy to answer any questions.

RESPONSES TO QUESTIONS FROM SENATOR GRASSLEY

Question 1: Please explain what shutdown benefits are and how they affect PBGC.

Answer: Shutdown benefits are found primarily in the pension plans of large unionized companies in the auto, steel, and tire and rubber industries. Shutdown benefits are triggered by a plant shutdown or a permanent layoff.

In pension plans of integrated steel companies, shutdown benefits provide an unreduced early retirement benefit as early as age 42 (i.e., a worker would receive at age 42 the same monthly benefit that he would normally receive at age 62). Once triggered, this early retirement benefit continues to be paid, even if the worker finds new employment in the steel industry or any other industry. In addition, shutdown benefits in the steel industry provide a $400 monthly supplement payable from the time of shutdown or layoff until age 62. Because the increased benefits are usually available to an entire group of participants (e.g., all the eligible employees at the plant that shut down), the shutdown event can greatly increase a plan's liabilities in one stroke. Shutdown benefits may double or even triple the cost of a worker's benefit.

In general, shutdown benefits are not funded before a shutdown occurs. In the 1987 Pension Protection Act, Congress required employers to fund shutdown benefits on an accelerated basis (generally, in five to seven years), but beginning only after the triggering event occurs. This post-event funding can achieve its goals in the case of a small-scale shutdown, such as where an employer shuts down one or two plants or lays off just one group of employees, but continues in business and is able to fund the shutdown benefits for the affected employees. In recent years, however, PBGC has encountered increasing exposure from situations where an employer shuts down virtually all of its facilities at more or less the same time, usually while in bankruptcy. In these situations, the post-shutdown funding requirements are ineffective because the employer is going out of business. In addition, because plans are not required to recognize unfunded shutdown liabilities until after the shutdown occurs, employers do not pay premiums to the PBGC to reflect the risk (and potential cost) of these benefits.

Under a 1975 regulation, the subsidized portion of shutdown benefits is guaranteed by the PBGC only if the shutdown occurs prior to plan termination. The supplement part of shutdown benefits is generally not guaranteed regardless of when the termination occurs. However, both the subsidized portion and the supplements drain the plan of assets when they are paid out prior to the plan's termination.

The PBGC can institute court proceedings to terminate a pension plan if it makes one of several determinations, including that the PBGC's "possible long-run loss . . . may reasonably be expected to increase unreasonably if the plan is not terminated." ERISA section 4042(a)(4). The PBGC has exercised this authority in a number of cases to terminate plans whose liabilities were expected to increase substantially due to anticipated plant or company-wide shutdowns. This statutory scheme, however, sometimes results in a race between the company to shut down a facility and the PBGC to ask a court to terminate the plan (without notice to the company). In response to a question from Senator Rockefeller at the hearing, I stated that this "race to the courthouse" scenario, with no prior notice to the company or workers, was an unsatisfactory way to do business.

At present, there is a potential exposure of over $15 billion in shutdown benefits in PBGC-insured plans. Yet, less than 5 percent of workers in PBGC-insured plans have shutdown benefit provisions in their plans. Thus, the cost of unfunded shutdown benefits is borne by other companies, the vast majority of whose workers do not have shutdown benefits in their plans. Other companies and workers in the defined benefit system should not have to bear the large cost of these unfunded shutdown benefits for a small group of companies.

It is important to note that companies are not required to offer workers a defined benefit plan. It is a voluntary system. If premiums become too onerous, responsible companies with well-funded pension plans may terminate their plans and exit the system, thereby denying workers the security of a defined benefit plan, reducing PBGC's premium base, and putting in question the long-term viability of the defined benefit insurance system.

Question 2: Is the cost of a terminated plan's shutdown benefits discharged in the employer's bankruptcy case?

Answer: Shutdown benefits are a liability of the pension plan, not of the employer. Thus, they are treated in bankruptcy like all other unfunded plan benefits. When a pension plan covered by Title IV of ERISA terminates, PBGC becomes responsible for collecting from the sponsoring employer all unfunded benefit liabilities, including the value of shutdown benefits. If the employer is a debtor in bankruptcy, PBGC files its claim as a general unsecured creditor for the plan underfunding. PBGC di-

vides its recovery on the claim between itself (to help pay for unfunded guaranteed benefits) and participants (to help pay their non-guaranteed benefits). Any amount of the claim that goes unpaid in the bankruptcy is discharged.

Question 3: During the hearing, you testified that you were in favor of legislative changes regarding shutdown benefits. Can you explain in more detail what kind of changes you are thinking of and why?

Answer: Unlike other pension benefits, shutdown benefits are not pre-funded and companies pay no specific premium to PBGC to reflect the additional risk these benefits impose on the guarantee system. PBGC should not be exposed to liabilities that are not funded. I favor legislation limiting PBGC's exposure to these benefits.

The current treatment of shutdown benefits is not in anyone's interest. As discussed above, PBGC must rush to court without notice to the parties to terminate a plan before the shutdown. It also means that the parties are negotiating benefits that the workers may never receive, often resulting in the frustration of participant expectations.

Question 4: If Congress were to adopt a corporate bond rate as a replacement for 30-year Treasuries, what effect would that have on plan funding and on PBGC premium income?

Answer: The liabilities of a pension plan are a stream of future payments owed to participants entitled to benefits under the plan. Each year, the plan's actuary determines the value of plan liabilities (and the value of plan assets) in order to determine how much the employer must contribute to its plan for the year and the amount of premiums owed to PBGC. To calculate the value of the liability stream, the actuary uses certain assumptions such as the expected rate of future salary increases, when participants are expected to retire, when participants are expected to die, and the interest rate used to discount future payments to reflect the time value of money. Each of these assumptions is important in determining the value of a plan's liabilities.

Interest rate assumptions have the following impact on pension funding. A higher interest rate reduces the value of plan liabilities for funding purposes. When liabilities are reduced, funding requirements are reduced. For companies paying the variable rate premium, reduced liabilities would also mean reduced premiums. Currently, there is significant underfunding in the defined benefit system.

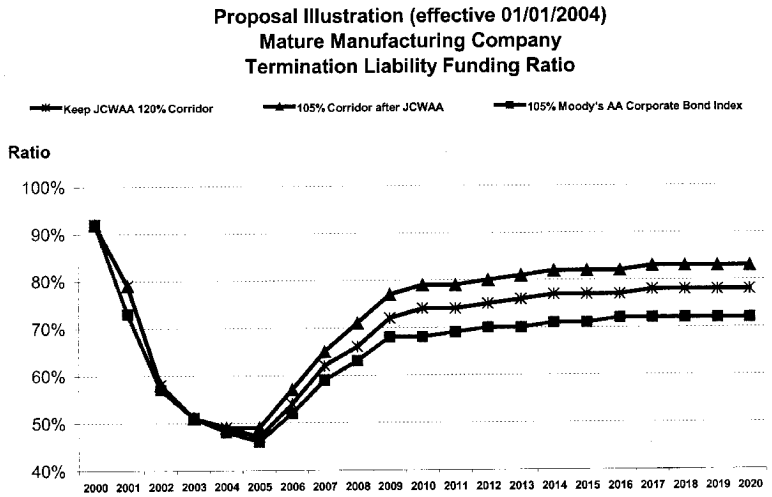
Under current law, different interest rates are used for different purposes. The interest rate on 30-year Treasuries is used in a number of calculations: to determine the amount of lump sums given to participants, to determine the PBGC variable rate premium, and to determine plan liabilities for purposes of the additional funding requirement for underfunded plans.

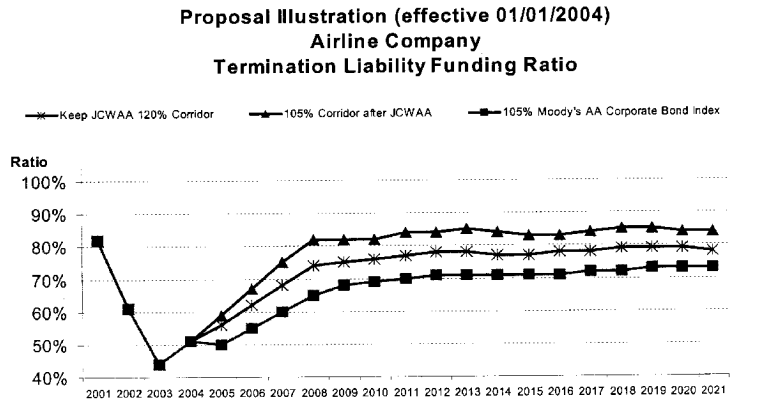
The Federal government has discontinued the issuance of 30-year Treasury bonds. In addition, the spread between yields on Treasury bonds and high quality corporate bonds has grown recently. In 2002, as part of the Job Creation and Worker Assistance Act, Congress provided funding relief for 2002 and 2003 by raising the top of the permissive corridor in the funding rules from 105 percent to 120 percent of the 4-year weighted average of the 30-year Treasury rate. The corridor will drop again to 105 percent in 2004 if legislative action is not taken.

Proposals have been put forward to substitute corporate bond rates for 30-year Treasury rates in the current liability formula, when the corridor reverts back to 105 percent. Because 105 percent of the weighted average of corporate bond rates is higher than the rate based on 120 percent of the weighted average of 30-year Treasuries, reported pension liabilities will be lower. As a result of lower reported pension liabilities, plan funding will decrease and PBGC variable rate premium income will also decline.

Some groups want to substitute corporate bond rates for 30-year Treasury rates as a means of providing permanent funding relief. This confuses two concepts. We must first find an accurate measure of pension liabilities. Once pension liabilities are accurately measured, appropriate funding rules can be addressed.

PBGC has modeled the impact of simply substituting the Moody's AA corporate bond rates for 30-year Treasury rates for 10 very large plans, some of which are sponsored by employers experiencing financial difficulty. Under current law (i.e., 120 percent dropping to 105 percent in 2004) the average termination funded ratio of these plans is projected to be 77 percent in five years. This five-year average funded ratio is projected to drop to 70 percent if the current 120 percent cap on the interest rate corridor is extended indefinitely. Using corporate bond rates, this five-year average is projected to drop even further to 63 percent. The attached charts illustrate projected termination funding ratios for two sample plans.





Question 5: Various media articles have reported that US Airways pilots will lose about 75 percent of their retirement benefits due to PBGC maximum guarantee limits. Can you comment on this?

Answer: Based on the most recent information available, we believe that the assets in the US Airways pilots plan are sufficient so that US Airways pilots who were retired or were eligible to retire three years prior to the date of plan termination will receive benefits in excess of the maximum guaranteed limit. For example, we expect that pilots who are 59 years old with 29 years of service and who have spent their entire careers with US Airways will receive from PBGC, on average, annual benefits of about $85,000 of the $110,000 they were expecting at age 60. This is significantly more than the PBGC maximum guaranteed benefit of $28,600 per year that PBGC would otherwise pay starting at age 60.

For pension plans terminating in 2003, the maximum guaranteed benefit amount is $3,664.77 per month ($43,977.24 per year) for a participant who commences benefit payments at age 65. This maximum guaranteed amount is lower if payments commence before age 65 or if the pension includes benefits for a survivor or other beneficiary. The limit is about $28,600 per year for a participant who begins receiving benefits at age 60. (The guarantee limit is higher if a participant commences benefits after age 65 or is older than age 65 when the plan terminates.)

However, many US Airways pilots will receive more than the $28,600 maximum limit because a participant may receive benefits in excess of the guaranteed

amounts if there are enough plan assets or recoveries from employers. Section 4044 of ERISA establishes priorities for allocating the assets of a terminated pension plan. First, assets are allocated to employee contributions (Priority Categories 1 and 2). Priority Category 3 (PC–3) includes the benefits of participants who were in pay status, or who could have been in pay status, as of the beginning of the three-year period ending on the date of plan termination, based on the least generous benefit provisions in effect during the five years before termination. For a participant who could have been, but was not, retired three years before plan termination, the benefit allocated to PC–3 is computed using the participant's age and service three years prior to the termination date. PC–3 contains both guaranteed and nonguaranteed amounts.

Question 6: How will PBGC rules affect the US Airways pilots who were previously employed by Eastern Air Lines and who will receive PBGC benefits based on their years of participation in the Eastern Air Lines plan that was previously trusteed by PBGC?

Answer: As noted above, for pension plans terminating in 2003, the maximum guaranteed benefit amount is $3,664.77 per month ($43,977.24 per year) for a worker who retires at age 65. If a worker is entitled to benefits under two or more plans, however, the aggregate benefit payable by PBGC from its guarantee funds is limited by law. Essentially, the maximum guarantee would be reduced by any amounts that PBGC had to pay from its own funds under the first plan for unfunded guaranteed benefits.

In the Eastern pilots plan, there were sufficient assets to pay all guaranteed benefits. Thus, PBGC is not paying any Eastern pilots benefits from its own funds. As a result, the maximum Title IV benefit for a pilot under the US Airways pilots plan would be unaffected by the fact that the pilot is also receiving benefits from PBGC under the Eastern pilots plan.

Question 7: At the hearing, you also testified that the steel and airline industries have accounted for about 70 percent of the claims against PBGC but fewer than 5 percent of insured participants. What is the percentage of total claims against PBGC from companies with collectively bargained plans? .

Answer: Collectively bargained plans have accounted for between 71 percent and 83 percent of the total amount of PBGC's claims over the 28-year period 1975–2002. Total claims during that period were $16.7 billion. Claims by collectively bargained plans, not including salaried plans that were related to collectively bargained plans, were $11.92 billion. Claims by collectively bargained plans, including salaried plans related to those collectively bargained plans, were $13.92 billion. Generally, these salaried plans incorporated the benefit formulas of the related bargained plans, with some modifications.

Question 8: Can you briefly explain PBGC's multiemployer insurance program and describe the underfunding in multiemployer plans?

Answer: PBGC administers a separate guarantee program for multiemployer defined benefit pension plans. PBGC's multiemployer program covers about 9.5 million workers and retirees in about 1,650 insured plans. The multiemployer program covers only collectively bargained plans involving two or more unrelated employers. Multiemployer plans are common in certain industries, including construction, trucking, mining, the hotel trades, and segments of the grocery business. Multiemployer plans pay PBGC a yearly premium of $2.60 per participant for benefit insurance coverage.

The current PBGC monthly benefit maximum guarantee level for multiemployer plans is 100 percent of the first $11 multiplied by the participant's years of service under the plan plus 75 percent of the next $33 multiplied by the participant's years of service. For example, the benefit for a worker with 30 years of service in a multiemployer plan is $1,072.50 per month ($12,870 per year). For multiemployer plans, the event triggering PBGC's guarantee is the inability of a covered plan to pay benefits when due at the guaranteed level, rather than plan termination as required under the single-employer program. PBGC provides financial assistance through loans to insolvent plans to enable them to pay guaranteed benefits.

The multiemployer program received two new requests for financial assistance during 2002. These requests raised to 31 the total number of plans that have received financial assistance from PBGC. Since 1980, PBGC has provided assistance with a total value of approximately $159 million (net of repaid amounts). During 2002, 23 plans were receiving financial assistance totaling about $5 million.

The multiemployer program has been in surplus since 1982, with a surplus of $158 million for FY 2002. The multiemployer program reported a gain of $42 million in 2002 compared to a net loss of $151 million in 2001. The change in net income was due to a smaller loss related to future financial assistance and an increase in investment income. Premium income increased slightly to $25 million. Because the

multiemployer program has a positive net position and most of its assets are invested in highly liquid Treasury securities, PBGC has sufficient resources to meet its liquidity requirements. In 2003, we expect premium receipts to total approximately $25 million while benefit payments and financial assistance are expected to be about $6 million, based on known claims.

Question 9: Can you explain how the funding rules for multiemployer pension plans differ from those of single-employer plans.

Answer: In general, defined benefit plans are subject to minimum funding requirements and maximum funding limitations, but there are differences between the funding rules for multiemployer plans and single-employer plans. The differences reflect the fact that contributions to multiemployer plans are set by multi-year collective bargaining agreements. As a result, multiemployer plans cannot immediately adjust to large swings in contribution requirements. Multiemployer plans are allowed to amortize actuarial gains and losses over a 15-year period, versus 5 years for single-employer plans. In addition, while multiemployer plans are not subject to the "deficit reduction contribution" requirements that apply to underfunded single-employer plans, poorly funded multiemployer plans are subject to enhanced "reorganization funding" rules.

Question 10: Does the Administration grant funding waivers to multiemployer plans and have any been granted in the past 2 years? Are any pending? What is the procedure for approving a funding waiver for multiemployer plans?

Answer: The IRS has jurisdiction over all requests for waivers of the minimum funding standards, and we understand that it typically receives 1 to 3 requests per year from multiemployer plans. Multiemployer plans can obtain a funding waiver only if at least 10 percent of contributing employers demonstrate that they are suffering from a "substantial business hardship." A plan can receive no more than 5 waivers in a 15-year period.

There are detailed IRS regulations that specify the information a plan must file to request a waiver, and IRS is allowed to share that information with PBGC under a special exception to the taxpayer confidentiality rules of Section 6103 of the Code. Under those restrictions, however, PBGC cannot disseminate any specific information about waiver applications.

Question 11: If a multiemployer plan is requesting a funding waiver, what does that suggest about the security of the plan that requested the waiver?

Answer: The IRS will grant a waiver only if it agrees that: (1) the employers who support the plan are suffering from a substantial business hardship; (2) the plan can be continued only if the waiver is granted; and (3) enforcement of the funding requirements would be adverse to the interests of plan participants.

I thank you again for giving me the opportunity to testify at the hearing. Please let me know if I can be of any further assistance.

PREPARED STATEMENT OF CHRISTOPHER W. O'FLINN

Mr. Chairman, members of the Committee, thank you for the opportunity to present the views of The ERISA Industry Committee on the funding of defined benefit pension plans. I am Christopher O'Flinn, Vice President, Corporate Human Resources, AT&T Corporation, and Chairman of The ERISA Industry Committee (ERIC), on whose behalf I am speaking today.

ERIC is a nonprofit association committed to the advancement of the employee retirement, health, incentive, and benefit plans of America's largest employers. ERIC's members provide comprehensive retirement, health care coverage, incentive, and other economic security benefits directly to some 25 million active and retired workers and their families. ERIC has a strong interest in proposals affecting its members' ability to deliver those benefits, their cost and effectiveness, and the role of those benefits in the American economy.

ERIC has a unique interest in funding rules for defined benefit plans because about 95 percent of the ERIC membership sponsor defined benefit pension plans. They also provide 401(k), health, and other benefits.

Summary

In 2001 the U.S. Treasury ceased to issue the 30-year Treasury bond on which the funding of defined benefit plans is statutorily based. As a result, we are left with an artificial interest rate that fails to reflect any rational basis with which to regulate pension plan funding. The lack of a rational rule has created uncertainty that, among other effects, has caused the stock of sound companies to be undervalued by stock analysts concerned about their potential future funding obligations.

Prompt action to replace the defunct 30-year Treasury bond rate for purposes of regulating pension plans is critical to protect the retirement security of millions of American workers and to avoid undercutting the ability of many companies to fuel national economic recovery ERIC urges the Committee to replace the 30-year Treasury rate with a composite rate of high-quality, long-term corporate bond indices that would be selected through Treasury regulations. ERIC also proposes to

- Coordinate the new rate with related mortality assumptions;
- Phase in the new rate for lump sum calculations; and
- Reduce the frequency with which employers bounce in and out of the current liability funding and quarterly contribution requirements.

(see attached proposal and background materials)

A composite corporate bond rate is generally recognized as a reasonable proxy for annuity purchase rates, which corresponds to the rationale for choosing 30-year Treasury rates as a benchmark in 1987. The proposed composite rate is higher than today's 30-year Treasury rate. But this is appropriate because the current use of the Treasury rate *overstates* the minimum funding needed to assure retirement security for plan participants.

The overstatement of liabilities frequently is requiring the diversion of hundreds of millions of dollars in a single company. Overstating liabilities is forcing some employers to make economically rational decisions to freeze, modify, or abandon their defined benefit plans, thus adversely impacting retirement security. Use of the defunct 30-year Treasury rate also causes participants to elect lump sums in circumstances where they would be better protected by an annuity.

Other possible replacements for the 30-year Treasury rate do not provide the combination of simplicity, transparency, relevance, immunity from manipulation, and availability provided by a composite corporate bond rate.

Congress must be careful not to overreact to reports raising concerns about the current status of pension funding. Part of the problem is that current law mismeasures the severity of any problems. In addition, the combined impact of a dramatic drop in asset values combined with an increase in calculated liabilities due to low interest rates is unusual and is not a sound platform for major reshaping of pension funding requirements.

At the same time, Congress should recognize its ability and responsibility to improve the climate for defined benefit plans in the future. For example, Congress imposed ever-harsher deduction limits on voluntary contributions to pension plans during the 1980s and 1990s, a trend that the Grassley-Baucus pension reform measures enacted as part of the Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107–16) began to reverse. Had restrictive deduction limits not been imposed during recent decades, many plans would be better funded today despite the current economic slowdown.

Finally, the current financial status of the Pension Benefit Guaranty Corporation (PBGC) should be monitored by Congress, but does not require any action at this time. The PBGC's funded ratio still is stronger than it has been for most of its history, and the corporation is abundantly able to pay promised benefits to participants in plans it trustees for the foreseeable future.

Overview of Funding Rules

To ensure that a defined benefit pension plan has sufficient assets to pay benefits when participants retire, ERISA and the Internal Revenue Code require the plan's sponsor to make minimum contributions to the pension plan. These minimum required contributions are calculated using reasonable assumptions and are equal to the normal cost of the plan plus amounts necessary to amortize over specified periods unfunded past service liabilities, experience gains or losses, waived funding deficiencies, changes in actuarial assumptions, and certain other items. Most defined benefit plans are funded under these original ERISA rules, as modified over time.

A plan that is either significantly or persistently underfunded will be subject to an additional set of funding rules. Basically, these rules look at whether a plan is likely to be able to buy annuities to cover its current level of accrued benefit promises. If a plan is far from being able to buy annuities, the rules require that additional cash be put into the plan, accelerating the pace of pension funding. These rules, commonly called the "current liability" funding rules, were added to the law in 1987 and modified in 1994, and are the focus of our discussion today.

The current liability funding rules require the sponsor to use a specified mortality table and to calculate liabilities using an interest rate that is within a range of rates based upon the four-year weighted average of 30-year Treasury bonds. As amended in 1994, amendments, the permissible range is no lower than 90 percent of the 30-year bond average and no higher than 105 percent of the 30-year bond average. For 2002 and 2003 only, a plan may use a rate of up to 120 percent of the 30-year bond

average. Congress enacted this short term-higher range last March (P.L. 107–147) in recognition of the fact that, as a result of the rise of budget surpluses followed by the decision of the Treasury to cease issuing 30-year bonds, the 30-year bond rate had dropped to levels that produced highly inaccurate and inflated calculations of pension liability.

The current liability rules come into play if, using these mandated assumptions, a plan is significantly or persistently underfunded—that is, if plan assets are less than 80 percent of current liabilities or if a plan assets are less than 90 percent of current liabilities for two of the last three years. Plans with any unfunded current liabilities must also make contributions on a quarterly basis during the plan year instead of making one annual contribution after the end of the plan year.

Current liability is also calculated to determine whether a plan sponsor will pay a $19 per participant flat rate premium tax to the Pension Benefit Guaranty Corporation, or whether the sponsor must, in addition, pay a variable rate premium tax based on the plan's unfunded vested benefit liability.

The 30-year Treasury rate is also used (without averaging and without the corridor available for funding purposes) to calculate the minimum lump sum that may be paid to a plan participant.

What happens if the 30-year Treasury rate is not promptly replaced?

If Congress fails to act, 2004 current liability calculations will be dictated by a maximum rate of 105 percent of the four-year weighted average of (defunct) 30-year Treasury bonds. Using the rates in effect on January 1, 2003, as a proxy, this would mean that plans would be forced to calculate their current liabilities with a maximum interest rate of 5.82 percent compared to 7.41 percent under the ERIC proposal. If this were to occur—

- Current liability calculations would increase by 15 percent or more.
- Many additional companies, including companies with plans that are in fact well-funded, would become subject to the special funding rules. Both they and those already subject to the rules would experience a spike in their contribution requirements. This will unnecessarily divert money that otherwise would have be spent to build new plant, buy equipment, pay for research and development, and support jobs.
- Plans that become subject to the current liability funding rules also must notify employees of their underfunded status (even if the plan is not underfunded using reasonable measures), and must pay variable rate premiums to the PBGC. Business operations of these plan sponsors also come under increased scrutiny by the PBGC.

There is no economic justification for these consequences. Thus, it is apparent that affected companies will find their support for defined benefit plans diminished. A strong financial incentive will be created to limit future liabilities. Where cash is in short supply, companies will have no option but to freeze their plans.

There is additional fall-out just from the uncertainty companies currently face. CEOs and CFOs need to know *now* whether they will be able to purchase new plant and equipment, to invest in research and development, and to accomplish other vital business objectives.

Consequences of the funding squeeze, caused in part by the continued reliance on the 30-year Treasury rate, already are occurring. A recent survey by Deloitte & Touche indicated that more than four out of ten defined benefit plan sponsors are either making or are considering making fundamental changes to their defined benefit plans. About a quarter of those making or considering changes either already have or are inclined to freeze benefits in the plan.

Action on a replacement rate is needed *now*. Analysts already are steering investors away from companies with a cloudy contribution forecast. Action by the end of the second quarter, after which planning for 2004 becomes critical, is vital. Delay means damage to plans and their participants, damage to companies, and damage to companies' ability to fuel economic recovery.

Why should a composite corporate bond rate be selected as the replacement for 30-year Treasury rates?

The current liability funding rules are designed to shore up funding in a plan that would have a serious shortfall if it were to terminate and purchase annuities to provide benefit payments. Thus, as the GAO reported less than two weeks ago, "the interest rates used in current liability and lump-sum calculations should reflect the interest rate underlying group annuity prices and not be subject to manipulation." (GAO–03–313)

Insurance companies tend to invest in long-term corporate debt. Therefore, a composite corporate bond rate will track changes in annuity purchase rates.

ERIC'S composite rate is composed of high-quality, long-term corporate bond indices. High quality (generally the top two quality levels) provides a reasonable level of security for pension plan sponsors to defease their liabilities.

ERIC's composite rate indices also are comprised of bonds with average maturities of 2530 years (implying durations of 10–12 years), which corresponds to the typical duration of pension plan liabilities.

When the 30-year Treasury bond rate was selected as a compromise basis for the new pension funding rules established in 1987, Treasury rates were closer to corporate bond rates than they are today. Moreover, mortality assumptions in use at the time were outdated, so having an interest rate that was overly conservative made sense.

The composite corporate bond rate in the ERIC proposal is based on indices that are published by major investment houses, based on disclosed methodology, and publicly available. The composite rate is based on information familiar to plan actuaries; it is simple for plans to implement; it is transparent, and it is strongly immune from manipulation.

What about mortality assumptions?

Under current law, Treasury is required periodically (and at least every five years) to review the mortality table required for current liability funding calculations and to update the table as appropriate to reflect the actual experience of pension plans (including permitting plan-specific adjustment factors such as employment classification, lifetime income, and other relevant demographic factors) and projected trends in such experience. An update in the required table is overdue.

ERIC recommends that the use of the RP 2000 Combined Mortality Table, produced by the Society of Actuaries based on a large study of pension plan experience, be required for funding and variable rate premium purposes at the time the composite rate becomes effective. Use of the new table will have the effect of increasing current liability calculations for most plans, partially offsetting the effects of adopting the composite corporate bond replacement for the 30-year Treasury bond.

ERIC proposes no changes for mortality assumptions for lump-sum distributions, since they already are being updated under a separate provision of law.

What about lump sum distributions?

It is important that the lump sum discount rate reflect the plan's discount rate. Any disconnect between the lump sum rate and the funding rate will cause plan distributions to either exceed or fall short of estimates used in the plan.

Today's low rate also presents participants deciding between a lump sum distribution and an annuity a choice that is overwhelmingly weighted toward the lump sum. This is in direct contravention of long-established policy that the choice should be economically neutral. As use of lump sums increases, fewer joint and survivor benefits are selected, adversely affecting long-term participant security. In addition, the plan's funding level is adversely impacted.

- Lump sums paid under a defunct Treasury rate are, in fact, windfall benefits that have damaging side effects for long term retirement policy and for the company sponsoring the plan.
- Elderly widows and widowers and others who outlive their assets and have no retirement income stream other than Social Security constitute one of the most vulnerable pockets of poverty today. The current lump sum structure will increase the number of spouses and others left adrift in the future if that lump sum is dissipated.
- Actuarial estimates indicate that a lump sum benefit under the current inappropriate discount rate increases the cost of the benefit to the plan by 17–40 percent. Many plans cannot absorb these costs and have been freezing or curtailing benefits. Thus, while some current retirees receive a windfall based on an anomaly in the government debt structure, future retirees will receive reduced benefits overall.
- Finally, Internal Revenue Code section 417(e) not only dictates the minimum lump sum rate, but also the rate that regulations encourage companies to use as the interest credit rate in cash balance plans. Thus, maintaining an artificially low lump sum rate for some current retirees means that millions of participants in cash balance plans are losing benefits compared to what they would be earning if the rate were rational.

ERIC proposes that the new interest rate be phased in over a three-year period. The three-year phase-in will align the two rates over time while ensuring that the shift from a defunct 30-year Treasury rate to the composite rate will not have abrupt effects on participants at or very near retirement.

Historically, the lump sum discount rates have averaged about 7 percent. Today's mandated rate is 4.92 percent. Under the ERIC proposal, if current rates remained in effect without change, this would gradually increase to a level of about 6.23 percent over a three-year period—still short of historical averages. The phase-in is designed to roughly approximate normal fluctuations of interest rates in a given year. Thus the changes would be within the margins of change that already occur on a year-to-year basis. In addition, in the second and third years, lump sums of many employees would increase from estimates made today because additional years of age and service would be included in the calculation.

What's wrong with selecting another government rate or a yield curve instead of a composite corporate bond rate?

Any other government rate is going to suffer from the same weaknesses as the 30-year Treasury rate—any relation to annuity purchase prices will be tangential or accidental. Indeed, as the GAO noted (p. 5), "Treasury rates' proximity to group annuity purchase rates might be adversely affected if investors' demand for risk-free securities increases, causing Treasury rates to decline relative to other long-term rates."

Government rates reflect the government's cost of borrowing, not the rate of return on an insurance company's portfolio. Thus they inherently lack relevancy for the purpose at hand.

Corporate bond yield curves might enable a plan to more closely approximate its group annuity purchase rate. However, the extra precision involved is outweighed by several drawbacks. For example:

- There has been little public discussion of a yield curve, a complicated proposal. Adequate consideration of a yield curve between now and July, when a replacement for 30-year Treasuries must be in place, could not occur. It would need substantially more time for debate and analysis. There are a number of highly technical issues involved in switching to a yield curve that have not been explored or addressed.
- Companies already unsure of their cash flow situation will be thrown into even greater confusion, to the detriment of their ability to participate productively in the economy.
- Since it would make no sense to average a yield curve over four years, an annual rate likely would be used. Unless some other "smoothing" mechanism is devised, this will substantially increase pension funding volatility.
- In addition to decreasing pension funding volatility, the current averaging mechanism gives plan sponsors the ability to estimate funding obligations well inadvance of the year for which they are due. Basing contributions on an unknowable "spot rate" decreases the ability of sponsors to plan capital commitments.
- Introducing volatile, unpredictable cash flow requirements is a significant burden on plan sponsors. As a result, maintaining a defined benefit plan will become less and less economically feasible for more companies. It would be impossible for Congress to overestimate the negative impact of turning at this point in time to a pension funding system that increased the volatility and unpredictability of required pension contributions.
- A yield curve would likely increase required contributions in plans with large numbers of retirees. This could cause very severe economic hardship for those companies.
- A yield curve, combined with the current law deduction limits, would result in less ability for a plan sponsor to fund the plan while participants are younger because it would delay the ability to deduct maximum contributions to periods when the workforce is more mature and declining, and when the company may face new or different economic pressures. It would, in effect, negate some of the good of the Grassley-Baucus amendment in EGTRRA, which phases out deduction limits that had a similar effect of delaying funding over the past decades.
- If a "precise" interest rate such as a yield curve is mandated, a precise mortality assumption also must be considered. Otherwise, industrial plans whose participants have shorter life spans will be required to excessively fund their pension plan. However, such use of such an assumption is likely to be controversial and will require additional discussion, as it will have different impacts on different plans.
- It is unclear how a yield curve would be applied for purposes of lump sum payments, raising a host of additional issues.
- A yield curve is likely to be far less transparent than a composite index; it may be more vulnerable to manipulation; it will be more difficult for the government to police, and it certainly will be more complicated.

A yield curve may impose these drawbacks on the defined benefit system for no real long-term gain over the more simple approach of a composite corporate bond rate.

What can Congress do to help?

Besides prompt enactment of a replacement for 30-year Treasury bond rates, Congress has important opportunities to improve the climate for defined benefit plans.

- Congress can provide for additional stability in companies' funding requirements by enacting ERIC's proposals regarding the volatility and quarterly contribution rules.
- Congress can also provide for increased deductibility for voluntary contributions made in excess of the current required amounts.

Should Congress be concerned about allegations that the PBGC is in trouble?

The short answer is, "No." Congress should monitor the financial status of the PBGC, but should recognize that the PBGC's funded status is better than it has been for most of its existence. It is in fact not in trouble and appears readily able to weather the current economic slowdown (see chart).

Should long-term problems emerge, there will be ample time and resources to address PBGC issues, unless short-sighted measures drive PBGC's premium payors away from the defined benefit system.

The loss of the PBGC's surplus should not be a surprise in the current economic circumstances and is, in itself, not a cause for alarm. Indeed, given the requirement in ERISA sec. 4002 that the PBGC "maintain premiums established by the corporation . . . at the lowest level consistent with carrying out its obligations under this title," maintaining a surplus might be in violation of the corporation's charter.

The economic health of the PBGC is determined not by whether it has a surplus or deficit at any point in time but by its ability to pay benefits to participants of plans it trustees. The PBGC has sufficient assets to pay benefits for the foreseeable future. In fact, the PBGC has operated successfully in a deficit situation for most of its history. (see chart)

The real security of the PBGC lies not in imposing new rules that force cash-strapped companies to choose between survival and putting more money into their pension plans. It lies in fostering a vibrant system with lots of companies maintaining defined benefit plans on which they pay premium taxes to the PBGC.

We appreciate the opportunity to appear before the Committee and will be pleased to respond to questions and engage in further discussions either at or after the hearing.

ERIC . . . . . MEMORANDUM

THE ERISA INDUSTRY COMMITTEE

1400 L Street NW Suite 350 Washington, DC 20005 (202) 789-1400 FAX - (202) 789-1120 http://www.eric.org

August 26, 2002

PENSION FUNDING PROPOSAL

OVERVIEW:

Targeted Reforms: ERIC proposes targeted improvements to the current law funding standards. These reforms are essential to restoring the health of the voluntary employer-sponsored defined benefit system and to securing the benefits of millions of U.S. workers and their families. Specifically, ERIC proposes to

- replace the current mandated 30-year Treasury bond rate with a new composite corporate bond rate,
- phase in the new rate for lump sum calculations,
- coordinate the new rate with related mortality assumptions, and
- reduce the frequency with which employers bounce in and out of current liability funding and quarterly contribution requirements.

Need for Reform: Employers are required to use 30-year Treasury bond rates to make a variety of pension calculations, including funding requirements designed to ensure that a plan has assets sufficient to pay benefits owed to date using assumptions consistent with those that would be used by insurance companies to satisfy the liabilities under the plan. When the 30-year Treasury bond rate was selected as the basis for the new funding rules established in OBRA '87, Treasury rates were much closer to corporate bond rates than they are today. The Treasury Department's buyback program and its subsequent discontinuation of the 30-year bond have driven the rates on 30-year bonds to an artificially low level that is significantly below prevailing long-term corporate bond rates. Treasury rates reflect the government's cost of borrowing, while corporate bond rates are indicative of the rate of return on an insurance company's investment portfolio. Thus, any future convergence of Treasury rates and corporate bond rates would be accidental.

The artificially low rate of return on 30-year Treasury bonds has distorted and exaggerated employers' pension funding obligations as well as their obligations to pay variable-rate premiums to the Pension Benefit Guaranty Corporation. This has weakened employees' retirement security. It has encouraged employers to curtail or terminate their plans and has weakened employer interest in continuing to maintain pension plans.

Congress recognized the severity of the problems caused by mandating an artificially low interest rate by temporarily increasing the range of permissible interest rates for use in funding and PBGC premium calculations [sec. 405 of the Job Creation and Worker Assistance Act, P.L.107-147, enacted March 9, 2002]. ***However, this temporary relief will expire at the end of 2003. Without additional action, employers will be faced with even more severe funding spikes.***

The artificially low 30-year rate has also distorted plans' benefit payments by inflating the size of lump-sum payments from traditional defined benefit plans, which are based on the 30-year Treasury rate. These

The artificially low 30-year rate has also distorted plans' benefit payments by inflating the size of lump-sum payments from traditional defined benefit plans, which are based on the 30-year Treasury rate. These artificially inflated lump sums have discouraged employees from electing to take their benefits as annuities -- contrary to federal retirement policy -- and have imposed substantial and largely unanticipated cash demands on pension plans. At the same time, the low 30-year rate has restricted the interest crediting rate on employees' accounts in the many cash balance plans that base their interest crediting rate on the 30-year Treasury rate. These results are not in the interest of employees, employers, or the nation as a whole.

Although voluntary employer-sponsored defined benefit pension plans provide valuable retirement security benefits to the millions of employees who participate in them, the coverage of these plans is declining. Since the enactment of ERISA in 1974, the percentage of private sector U.S. workers covered by defined benefit pension plans has dropped from 39% in 1975 to 23% in 1995. Between 1988 and 1999, the number of active participants in PBGC-insured defined benefit plans fell by 18%, from 27.3 million to 22.4 million -- notwithstanding the expansion of the total workforce during this period.

Short-sighted funding standards have been a major reason for the decline of defined benefit plans. Current rules subject employers to highly volatile funding requirements that are difficult, if not impossible, for employers to predict, thus making it less attractive for employers to maintain defined benefit plans. While there are many changes that ERIC and others might propose to make pension funding standards more compatible with the objective of providing retirement security, ERIC's proposal is restricted to key issues that must be settled before the expiration of the temporary relief provided in P.L.107-147.

ERIC PROPOSAL

Replace the 30-Year Treasury Rate with a Composite Rate: For funding, variable rate premium, and lump-sum purposes, the 30-year Treasury bond rate should be replaced by a composite corporate bond rate (the "Composite Rate"). Under the proposal, the Composite Rate is the unweighted arithmetic average of several indices that consist of high quality bonds with maturities of ten years or more. The Composite Rate is designed to be indicative of the rate of return on an insurance company's investment portfolio -- as contrasted with a rate that, like the 30-year Treasury rate, is indicative of the federal government's cost of borrowing.

Initially, the following indices should be used to establish the Composite Rate:

1. Moody's Aa Long Term Corporate Bond Index;
2. Merrill Lynch 10+ High Quality Index;
3. Salomon Smith Barney High Grade Credit Index; and
4. Lehman Brothers Aa Long Credit Index.

Under the proposal, the Treasury (1) may issue regulations replacing any index that ceases to be published or that becomes unrepresentative of the rate of return on an insurance company's investment portfolio and (2) is required to publish the Composite Rate daily. The Composite Rate on any date is the unweighted arithmetic average of the rates for the designated indices.

The Composite Rate replaces the 30-year Treasury rate wherever the latter terms appears in current law. For purposes of the minimum funding standards, the Composite Rates on the applicable dates will be averaged in accordance with the weighted average rules of current law.

For example, the current funding standards under IRC § 412(l) are based on liabilities calculated using an interest rate within a permissible range of not more than 5% above, and not more than 10% below, the weighted average of the rates of interest on 30-year Treasury securities during the four-year period ending on the last day before the start of the plan year. Under the proposal, the calculation is the same, except that the Composite Rate is used instead of the 30-year Treasury rate.

Similarly, the variable rate premium should be based on the plan's unfunded vested benefits based on 100% of the Composite Rate, rather than the 30-year Treasury rate, for the month preceding the beginning of the plan year.

Under the proposal, the minimum lump-sum payment from a pension plan is likewise based on 100% of the Composite Rate, rather than the 30-year Treasury rate. The current regulatory provisions regarding lump-sum payments will remain in place under the proposal, however. For example, the proposal does not change the rules regarding the stability period for lump-sum calculations, except that the Composite Rate is used instead of the 30-year Treasury rate. Under the proposal, changing from the 30-year rate to the Composite Rate will not cause a plan to violate the anti-cutback rule.

Phase-in of New Interest Rate for Lump-Sum Purposes: The new interest rate should be phased in over a three-year period for purposes of calculating the minimum lump-sum payment under a pension plan. The three-year phase-in will moderate the effect on lump sums of shifting from the 30-year rate to the Composite Rate. However, the three-year phase-in will not apply for purposes of the minimum funding standards or the variable rate premium.

The three-year phase-in will operate as follows. In the first year, the interest rate will be the weighted average of the two rates, giving one-third weight to the Composite Rate and two-thirds weight to the 30-year Treasury rate. In the second year, the interest rate also will be the weighted average of the two rates, except that two-thirds weight will be given to the Composite Rate and one-third to the 30-year Treasury rate. In the third year (as well as subsequent years), the rate will be based entirely on the Composite Rate.

Mortality Table: At the time the Composite Rate becomes effective, the use of the RP 2000 Combined Mortality Table will be required for funding and variable rate premium purposes. Consistent with current law, the Treasury will be required periodically (and at least every five years) to review the mortality table and to update the table as appropriate to reflect the actual experience of pension plans (including permitting plan-specific adjustment factors such as employment classification, lifetime income, and other relevant demographic factors) and projected trends in such experience. Mortality assumptions for lump-sum purposes will be updated according to current law.

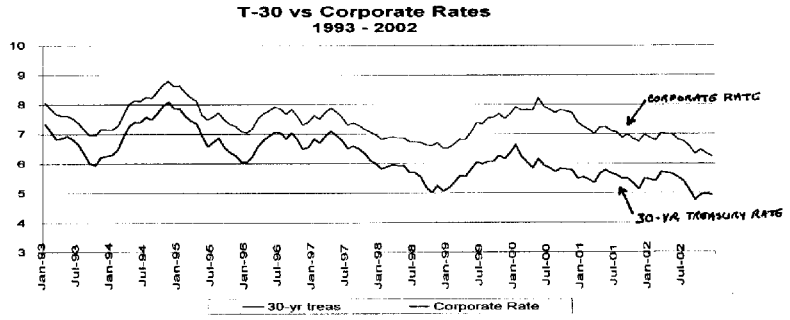
Volatility Rule: Under IRC § 412(l)(9), a plan is exempt from the funding requirements of IRC § 412(l) if the plan is at least 80% funded and is at least 90% funded for each of the two preceding plan years (or for each of the second and third immediately preceding plan years). Under the proposal, the rule in § 412(l)(9) will be changed so that a plan will be exempt from the additional funding requirements of § 412(l) if the plan is at least 80% funded and *is at least 90% funded for at least two of the immediately preceding four plan years.*

Quarterly Contribution Requirement: Under current law, an employer must make minimum funding contributions on a quarterly basis if the plan is less than 100% funded. The 100% standard can operate as a "hair trigger" for plans even in the general vicinity of 100% funding, since a relatively small change in interest rates or asset values can easily subject such a plan to, or exempt it from, the quarterly contribution requirement. In order to reduce the frequency with which plans bounce in and out of the quarterly contribution requirement, the proposal changes the trigger for the quarterly contribution requirement to mirror the volatility requirement in § 412(l)(9), as modified in accordance with the preceding paragraph. Thus, under the proposal, a plan will be exempt from the quarterly contribution requirement if the plan is at least 80% funded and is at least 90% funded for at least two of the immediately preceding four plan years.

Relationship Between T-30 and Corporate Rates

The spread between Treasury and corporate rates widened in September 1998, and has remained at very high levels thereafter.

	T-30	Corporate Composite Rate	T-30 less Corporate Rate
Current Rates			
12/02 monthly average	4.92	6.23	-1.31
four-year weighted average at 12/02	5.54	7.06	-1.52
Historical Rates			
average of rates for 1998-2002 period	5.63	7.09	-1.46
average of rates for 1993-1997 period	6.83	7.65	-0.82



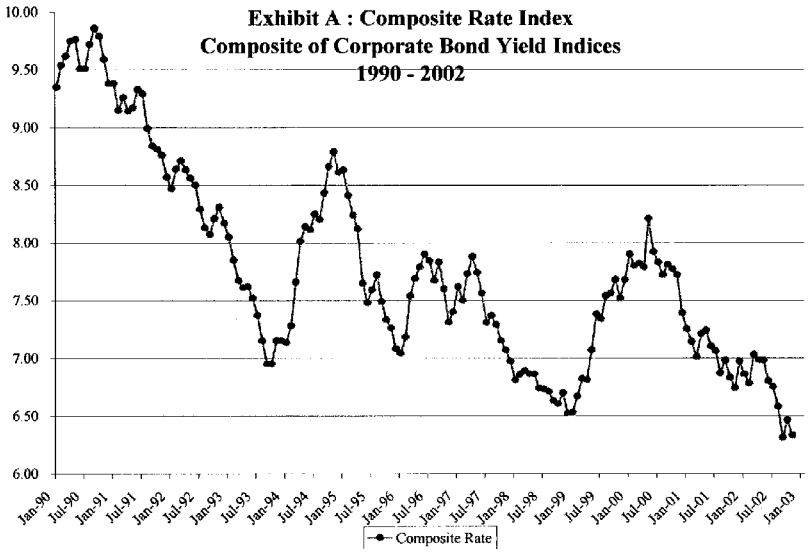


Exhibit B: Composite Rate Index with Underlying Yields from Moody's, Merrill Lynch, Salomon Bros. And Lehman Bros. 1990 - 2002

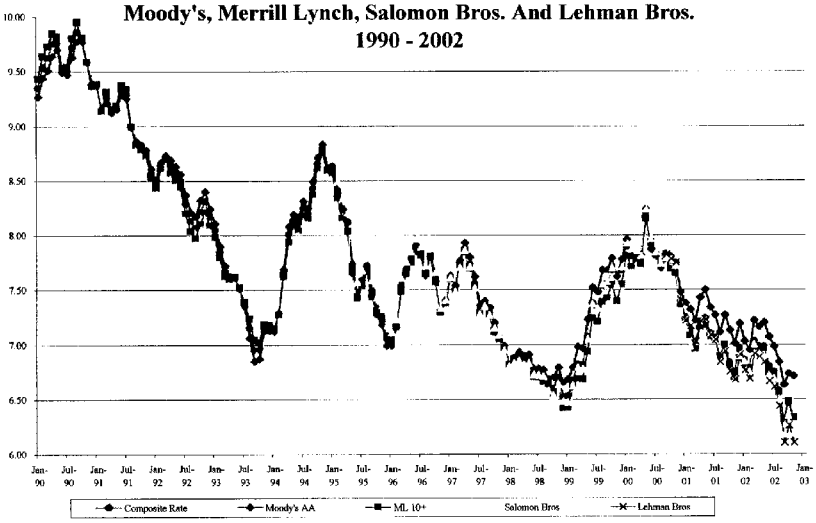


Exhibit C: Composite Rate Index vs. 30-Year Treasury Bond Yield and PBGC rate (adjusted 2 months) 1990 - 2002

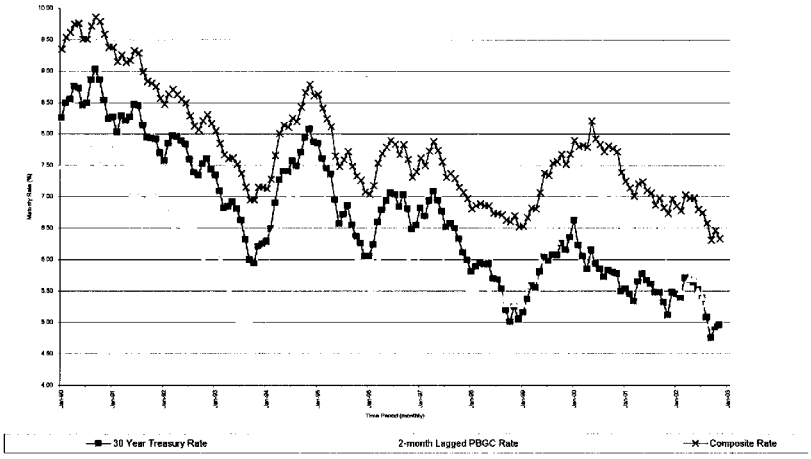
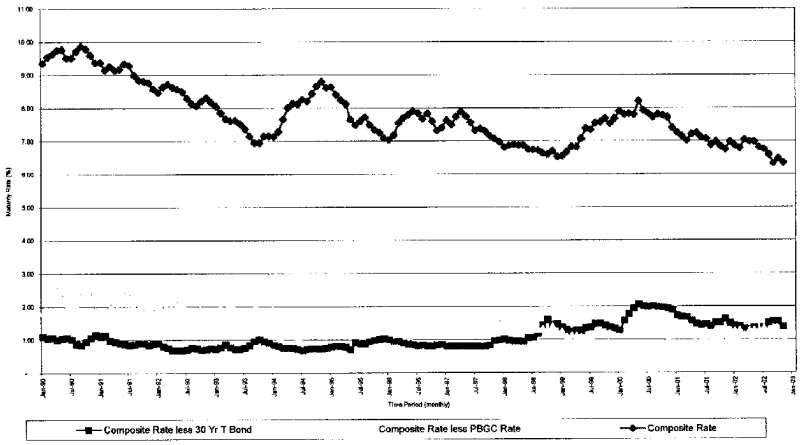


Exhibit D: Differences between Composite Rate Index and 30-Year Treasury Bond Yield and PBGC rate (adjusted 2 months) 1990 - 2002



Detailed Technical Information Regarding Charts

The charts are based on monthly averages of the rates; this is the same basis used to reflect 30-year Treasury yields under current pension regulation. In some instances, due to data limitations, we have graphed the monthly averages based on an average of daily data.

The series used are as follows:

- ***Moody's Aa Long Term Corporate Bond Index.*** The minimum maturity for the bonds in this index is 20 years, with an average of 30 years. Average yield of corporate bonds rated AA by Moody's. Moody's Long-Term Corporate Bond Yield Averages are derived from pricing data on a regularly replenished population of nearly 100 seasoned corporate bonds in the U.S. market, each with current outstandings over $100 million. The bonds have maturities as close as possible to 30 years; they are dropped from the list if their remaining life falls below 20 years, if they are susceptible to redemption, or if their ratings change. All yields are yield-to-maturity calculated on a semi-annual basis. Each observation is an unweighted average, with Average Corporate yields representing the unweighted average of the corresponding Average Industrial and Average Public Utility observations. This index is included in the charts for the entire period.

- ***Merrill Lynch 10+ High Quality Index*** is a subset of the US Corporate Master index using AAA-AA Rated bonds with maturities 10 years and higher. The Corporate Master Index tracks the performance of US dollar-denominated investment grade Corporate public debt issued in the US domestic bond market. Qualifying bonds must have at least one year remaining term on maturity, a fixed coupon schedule and a minimum amount outstanding of $150 million. Bonds must be rated investment grade based on a composite of Moody's and S&P. "Yankee" bonds (debt of foreign issuers issued in the US domestic market) are included in the Index provided the issuer is domiciled in a country having an investment grade foreign currency long-term debt rating (based on a composite of Moody's and S&P). Medium term notes qualify for inclusion. All non-Corporate debt, including Foreign Governments and Supernationals, are excluded from the Index. "Global" bonds (debt issued simultaneously in the eurobond and US domestic markets) also qualify for inclusion. 144a issues are not included in the Index until they are exchanged for registered securities. The Index is rebalanced on the last calendar day of the month. Issues that meet the qualifying criteria are included in the index for the following month. Issues that no longer meet the criteria during the course of the month remain in the index until the next month-end re-balancing at which point they are dropped from the index. The inception date of the Index is December 31, 1972. It is included in the chart for the entire period.

- ***Salomon Smith Barney High Grade Credit Index.*** The High-Grade Credit Index includes those issues from the Credit Index that have at least ten years to maturity (long-term) and a minimum credit rating of AA-/Aa3. The Credit Index includes US and non-US corporate securities and non-US sovereign and provincial securities. The index is included in the attached charts from January 1995.

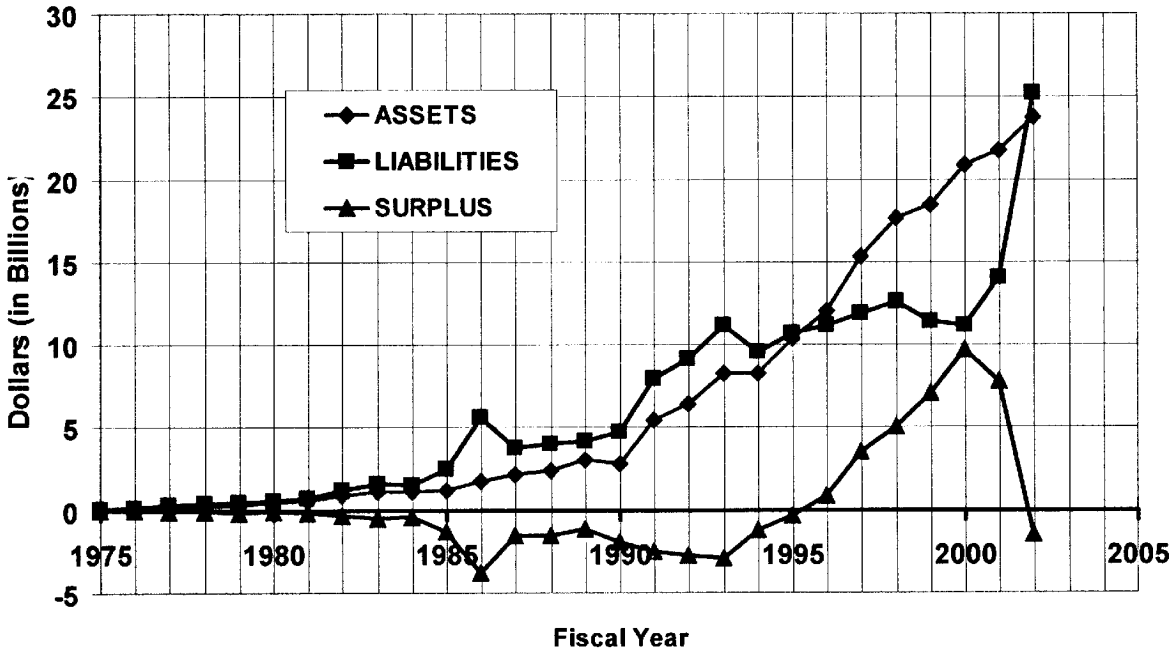
- ***Lehman Brothers Aa Long Credit Index.*** The overall Credit Index includes investment-grade bonds issued by corporations and non-corporate entities. The Credit Index is subdivided into industrial, finance, utility, and non-corporate sectors and had a total market value of $1.84 trillion, or 26.8% of the Aggregate Index, as of December 31, 2001. All bonds must be SEC-registered (144A's can be included but must be issued with registration rights). Credit Index results are also available on the basis of credit quality (Aaa, Aa, A, and Baa) since 1973. The Credit Index includes publicly issued U.S. corporate and non-corporate debentures and secured notes that meet the maturity, liquidity, and quality guidelines. Subordinated issues are included provided other criteria are met. Securities with normal call and put provisions and sinking funds are included, but structured notes with embedded swaps or other special features are excluded. Medium-term notes are excluded unless they are publicly underwritten. Private placements, 144As without registration rights, floating-rate securities, and Eurobonds are also excluded, but global issues that are SEC registered are included. Bond issues included in the Long Credit Index must have 10+ years left until maturity. The index is included in the attached charts from September 2000 based on availability to us of monthly average rates from that point (the index was established at a prior point).

The Exhibits compare the proposed composite rate over the past 12 years with:

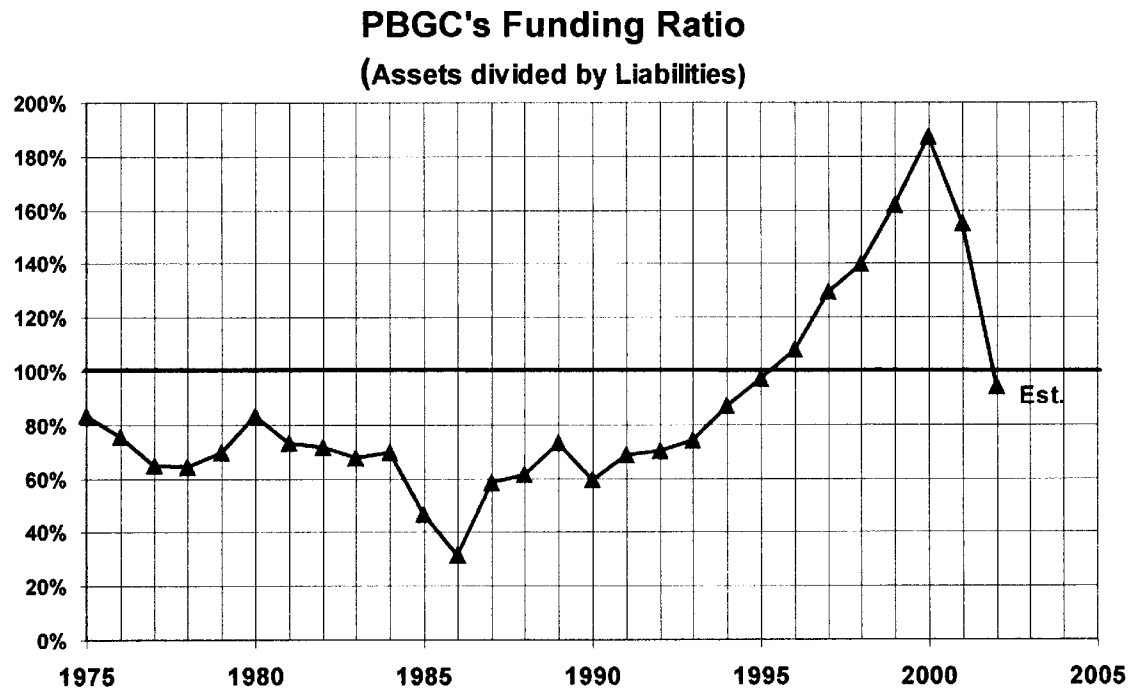
- each of the indices
- 30-year Treasury yields
- PBGC rates

PBGC rates are based on a monthly survey which is then adjusted by PBGC and announced in advance of the month to which the rates will apply; this generates a "lag" in PBGC interest rates compared to market rates. PBGC rates displayed in the chart have been adjusted 2 months to account for the timing difference. PBGC rates are typically issued as an initial and an ultimate rate – the ultimate rate is typically adjusted annually while the initial rate is adjusted monthly with a lag as described above. The rates shown are based on the initial (monthly-adjusted) PBGC rate.

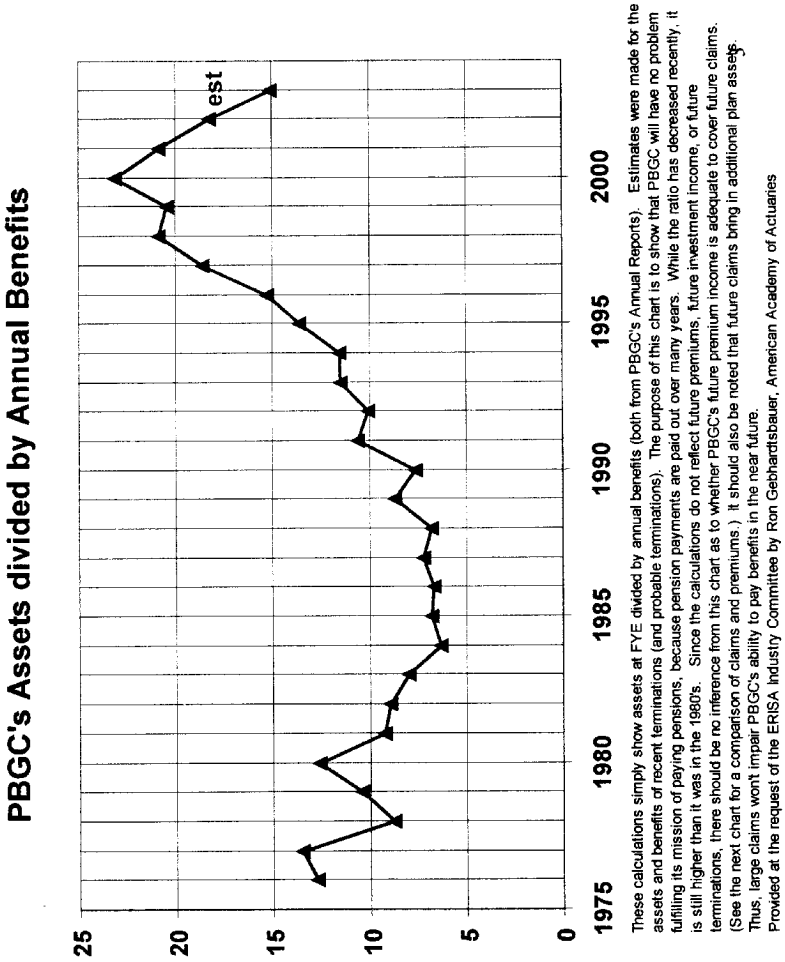
PBGC Single Employer Fund



Even though PBGC may have a deficit now, assets are still close to liabiliites. Note: The 2002 numbers are estimates.
Provided at the request of the Erisa Industry Committee by Ron Gebhardtsbauer, American Academy of Actuaries



Note: PBGC assets are now around 90% or 95% of liabilities., which is better than their first 20 years.
Provided at the request of the ERISA Industry Committee by Ron Gebhardtsbauer, American Academy of Actuaries



These calculations simply show assets at FYE divided by annual benefits (both from PBGC's Annual Reports). Estimates were made for the assets and benefits of recent terminations (and probable terminations). The purpose of this chart is to show that PBGC will have no problem fulfilling its mission of paying pensions, because pension payments are paid out over many years. While the ratio has decreased recently, it is still higher than it was in the 1980's. Since the calculations do not reflect future premiums, future investment income, or future terminations, there should be no inference from this chart as to whether PBGC's future premium income is adequate to cover future claims. (See the next chart for a comparison of claims and premiums.) It should also be noted that future claims bring in additional plan assets. Thus, large claims won't impair PBGC's ability to pay benefits in the near future.

Provided at the request of the ERISA Industry Committee by Ron Gebhardtsbauer, American Academy of Actuaries

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PREPARED STATEMENT OF HON. JOHN D. ROCKEFELLER IV

Mr. Chairman, thank you very much for holding this important hearing. The Pension Benefit Guaranty Corporation plays an extremely important role in safeguarding the financial security of many workers. The extraordinary deterioration of the Corporation's insurance fund is startling and worrisome. I am committed to working with my colleagues to enact reforms if necessary to ensure that the PBGC is fundamentally sound and prepared to meet the needs of workers who are devastated by the failures of their pension plans.

Since its creation in 1974, workers have been able to rely on the PBGC to serve as a critical safety net. Men and women work hard and plan for their retirements according to benefits that they have been promised. In order to be sure that the promised pension benefits are secure, employers pay insurance premiums to the PBGC. This system was designed to protect the golden years of people who had worked all their lives and to provide adequately for survivors.

The recent reversal of fortunes at the PBGC puts this safety net at risk. Just like the much-touted surpluses that the federal government had expected to enjoy, the almost $8 billion surplus in the PBGC's insurance fund has evaporated and changed

into a deficit of more than $3 billion. The apparent insolvency of the insurance fund is extremely troubling because it calls into question the Corporation's ability to continue to fulfill its mission and protect the pension benefits that have been promised to workers around this country.

I am also concerned that in response to its new fiscal crisis, the PBGC may be losing sight of the true nature of its mission. Last week, the PBGC announced, quite suddenly, that it would involuntarily terminate the defined benefit pension plan of the Wheeling-Pittsburgh Steel Corporation. Unfortunately, the PBGC decided to take this drastic step without consulting with the company's executives about the steps that are still being taken to bring the company out of bankruptcy.

Apparently, PBGC took this drastic step in order to avoid any possibility of becoming liable for shutdown benefits. I respect the urge to minimize losses and recognize that the PBGC was acting within its authority in taking this drastic step. However, I am very concerned that the PBGC's actions have the effect of punishing the very workers it was intended to protect. Wheeling-Pitt is working very hard to recover and to keep the pension plan open for the benefit of current employees as well as retirees. The PBGC's precipitous actions will drastically reduce benefits for many workers.

I am very interested in hearing Mr. Kandarian's thoughts on whether the PBGC is adequately serving working men and women in this country when it terminates pension plans and imposes reduced retirement benefits. As I said, I am aware of the dramatic losses that the PBGC has sustained recently. But I am interested in constructive reform ideas that can protect the integrity of the PBGC's mission. That is, the agency is supposed to be protecting the retirement benefits that the workers have been promised, rather than punishing workers in order to minimize its own liabilities.

Again, Mr. Chairman, thank you for calling this hearing. I look forward to a productive discussion with today's witnesses.

PREPARED STATEMENT OF CAPTAIN MARK SCHULER

I am Captain Mark Schuler of US Airways. Accompanying me is Captain Pete McGuirk, also of US Airways, and a member of the Retirement and Insurance Committee of the US Airways Air Line Pilots Association. I appreciate the invitation of Chairman Grassley and this committee, to discuss the effect of terminating the pilots' pension plan on myself and my colleagues at US Airways.

As members of the committee are aware, US Airways is currently operating in chapter 11 of the bankruptcy code, and plans to emerge from bankruptcy on March 31, 2003. The company has petitioned the Air Transportation Stabilization Board for approval of a 900 million dollar seven year loan guarantee to secure exit financing. ATSB approval of the loan guarantee and additional debtor in possession financing is contingent in part upon successful resolution of the pilots' pension issue. On January 31, 2003 US Airways announced its intention to terminate the pilot's pension plan effective March 31, 2003. Although the company met its minimum legal funding requirements, the drop in the stock market and low interest rates created a pilots pension funding deficit of $575 million in 2004, and $333 million in 2005. The bankruptcy court of Virginia approved this termination in a decision March 1.

The company's decision to terminate the plan followed significant restructuring of labor agreements at US Airways in two rounds of negotiations. In each round of these negotiations, the pilot took the lead among the labor groups and agreed to a 33 percent pay cut and significant reductions .in work rules. The company and the pilot group also agreed to a revised and reduced retirement plan. All of these concessions together will save US Airways 5645 million annually, reducing the cost of employing a pilot at the company by nearly 46 percent. Downsizing the airline also resulted in many pilots moving from captain to first officer positions, generating a significant loss of pay. However, the most painful effect of the restructuring was the furlough of several thousand employees, including 1827 pilots.

After unprecedented contract concessions and furloughs, the pilot group now faces termination of the pension we have planned on for our entire careers. Assumption of the plan by the Pension Benefit Guaranty Corporation presents US Airways pilots with an enormous loss of pension benefits. The formula for calculating the benefits includes variables such as a pilot's age, time of employment and projected earnings, which depend on one's seniority position. Therefore, it is difficult to capture a single profile as illustrative of the group. However, all pilots must retire at age 60. This has the effect of reducing the PBGC maximum payment. In my own case, my PBGC benefit at age 60 represents a 67 percent reduction in my retirement benefits compared to the revised retirement plan reached through a collective bar-

gaining agreement between the union and the company in December 2002. That agreement required amortizing the pension deficit to a 30 year term instead of the current 7 year time frame. The PBGC declined to approve this restoration funding.

With the announcement to terminate the pilots' pension the company proposed a defined contribution plan to supplement the PBGC guarantee. This plan provides retirement benefits below those of the agreement reached in December 2002. It requires an investment return of 8 percent to reach the planned targets, and is funded only going forward until a pilot retires at age 60.

If a plan similar to this is created, many pilots loose the potential benefit of this supplement to the PBGC guarantee. First Officer Charles Couch, who at 58 must retire in 2 years, will realize a 56 percent loss of retirement benefits with the PBGC maximum payment This monthly maximum payment for First Officer Couch will be $2,382 per month, down from $5,409. Assuming a replacement plan is created requiring an 8 percent return and the funding for that plan begins April 1, 2003 he will have only two years to earn any additional pension benefits. Captain Mike Fairley's was a veteran of Eastern Airlines and the Trump Shuttle. He will shortly be 60 years old, and will receive a PBGC payment from the Eastern plan, which was terminated when the company went out of business. Trump Shuttle was acquired by US Airways in 2000. Assuming the PBGC will provide a payment from both the Eastern and US Airways plan Captain Fairley's benefits are reduced from an anticipated benefit of $5,880 to $3,760 per month. If dual payments are not allowed, his benefit is further reduced to $2,910 monthly. In either case, Captain Fairley retires in June 2003, and has virtually no opportunity to accumulate increased pension fund earnings.

When I joined US Airways in 1985 1 was fulfilling a life long dream to fly for a major carrier. Pilots plan their careers with a single carrier because moving laterally to another company is not possible. A move requires starting again at the bottom of a seniority list, and a pilot's seniority determines crew assignment and earning potential. As I mentioned earlier, pilots are required by law to retire at age 60. We must undergo semi-annual flight physicals, and risk the loss of our license and profession from medical disqualification.

We spend a career committed to the safety of our passengers, and look forward to the pension earned under our provisions of our contract. Now we face the loss of that earned pension, and major losses in our retirement benefits. Without an opportunity to plan earlier for this change in our retirement plan, many will face a significant loss of retirement security.

The agreement reached between ALPA and the company in December 2002 reducing the existing pension plan would significantly mitigate the loss of pay and benefits facing the pilot group. This change is possible under the provisions of S–119, which would permit restoration funding by amortizing the funding requirements over a period of 30 years. This would be a win for the pilot group, and a win for the company. This solution would also avoid the need for the PBGC to take over another distressed plan. I would like to thank the committee for this opportunity to testify today, and for your consideration of the situation faced by US Airways pilots.

COMMUNICATIONS

STATEMENT OF AARP

AARP appreciates the opportunity to express its strong concern about proposals to change plan funding rules that would have a significant negative impact on single-sum retirement benefits for millions of employees in defined benefit pension plans. As your Committee and the Congress considers substitutes for the 30-year Treasury interest rate and related changes to these pension provisions, we urge you to protect and preserve participants' benefits, including annuities and lump sums. In short, while it is appropriate to review the use of the 30-year Treasury rate for funding purposes, the use of a more conservative 30-year Treasury rate for determining lump sums should be maintained.

Overview

The interest rate on 30-year Treasury bonds is a key element of the statutory provisions determining the value of single-sum benefits in defined benefit plans, the employer's ability to cash out pension benefits without the employee's consent, the contributions required of employers sponsoring underfunded plans, and the premiums those employers must pay the Pension Benefit Guaranty Corporation, as well as other provisions. Proposals to move away from the 30-year Treasury bond rate have arisen because a weak stock market and low interest rates—combined with the Treasury's decision to stop issuing the 30-year Treasury bond—are currently imposing significant funding pressures on employers that sponsor defined benefit plans.

However, individuals are also feeling the pressure of falling rates and a weak market, which has dramatically lowered both the account balances and expected returns that had been counted on for a more secure retirement. Congress should not compound this hardship by amending the statute to reduce guaranteed benefit amounts. At a minimum, Congress should retain a rate consistent with the 30-year Treasury rate, and maintain the traditional spread between the current statutory single-sum rate and any selected higher market rate for funding purposes. To the extent that legislation prescribes any new single-sum interest rate benchmark, even one that attempts to replicate the traditional spread for the 30-year Treasury rate, fundamental fairness to employees dictates that any change be phased in very gradually.

Funding Rates and Lump Sum Rates Should Continue to Be Different

Some have argued that the interest rates used to determine plan funding and the rates used to determine the amount of single sum distributions should be identical. But those rates are not the same today, have not been the same for years, and should continue to differ if Congress amends the relevant provisions. Under current law, the rate used to determine the present value (the single-sum equivalent) of a pension annuity benefit is the 30-year Treasury interest rate. By contrast, the rate used to determine contributions to underfunded plans for 2002 and 2003 can be as high as 120 percent of a four-year weighted average of 30-year Treasury interest rates. Not only have the single-sum rate (the 30-year Treasury rate) and the maximum permissible funding rate been different, but the relationship between them has varied from year to year as the four-year weighted average has changed and as Congress reduced the maximum funding rate from 110 percent to 105 percent of the four-year weighted average over a five-year period before increasing it temporarily to 120 percent of that average.

It is appropriate that the rates for these different purposes be different, and that the lump sum rate be a more conservative rate. Employees and employers have different needs and different capacities to bear risk. In particular, an employer is in a different position in relation to the risk that interest rate volatility will increase

plan liabilities than an employee is in when confronting the risk that interest rate volatility will reduce her single-sum benefit below its anticipated level. Employers often can compensate for uncertainties in the market by funding more in advance and, if the plan's funded status deteriorates, by contributing more to make up for that after the fact.

By contrast, employees nearing retirement—who are counting on a single sum of a specific value based on disclosures received from the plan—need greater protection from the risk that a rise in rates will reduce the benefit they have reasonably been expecting. Older employees in particular may not have sufficient time to adjust to a benefit reduction. And as plans provide employees more and improved disclosure of expected single-sum and other benefit values, employees will tend to place increasing reliance on the expected level of their benefits.

In recent times, we are seeing all too graphically the effects of market risk on individual employees' retirement benefits in defined contribution plans (particularly where employees are not diversified because their accounts are over-concentrated in employer stock) and in individual retirement accounts. For employees, defined benefit pension plans can provide a refuge from market risk and other investment risk. But if the benefits in defined benefit plans—which millions of employees have been earning over many years—are reduced during the low points in the business cycle, when markets and plan asset values are down, that would undermine the risk protective function of these plans—one of the principal virtues of the defined benefit system.

There is no good time to cut pension benefits; but in a sense the worst time to do so in defined benefit plans is at a time like this, when employees have suffered major declines in their 401 (k) and IRA balances and when the interest rates and other returns they can expect from investing pension distributions are so low. Low interest rates for determining single-sum distributions are not out of line with the low interest rates available to individuals on their investments outside of qualified plans.

Lower Single-Sum Rates Are Consistent With Good Pension Policy

Some argue that lump sum interest rates should be increased significantly so as to reduce the value of lump sums and thereby discourage employees from electing them. The theory is that reducing lump sums would promote retirement security by discouraging employees from choosing lump sums. But national pension policy should enhance retirement security by minimizing "leakage," or cash-outs, of benefits from the pension system, rather than reducing the value of employees' single-sum benefits. In fact, by preserving larger lump sums, individuals will ultimately realize greater retirement security. The notion that reducing the lump sum calculation will indirectly discourage such payments—and that fewer single sums mean greater preservation of benefits—glosses over a number of important realities in the pension system.

First, in many cases, employees have no choice between a single-sum payment and annuity or other benefits. Involuntary lump-sum cash-outs of benefits that do not exceed $5,000 in present value represent a very substantial percentage of all single-sum distributions. These payments are chosen not by employees, but by employers. Paying involuntary lump sums allows plan sponsors to reduce costs by no longer paying PBGC premiums for the cashed-out employees and by saving the administrative cost of maintaining the benefits and related records. When an employee receives a single-sum payment, whether voluntarily or otherwise, the cost of maintaining those assets shifts to the employee (such as the cost of investing and administering the assets in an IRA or taxable account). Indeed, this shift of cost to the individual is yet another reason the more conservative Treasury bond rate is the appropriate benchmark.

Increasing the lump sum interest rate would also shift the benefits of more employees below the $5,000 threshold, thereby subjecting more employees to involuntary cash-out. Indeed, it is these small lump-sum distributions that are the ones that are most often consumed instead of rolled over to another plan or IRA.

Second, when employees do have a choice between an annuity and a singlesum benefit, it is not at all evident that their choices are particularly sensitive to incremental differences in actuarial value, as opposed to other factors that create a highly uneven "playing field" between annuities and single-sum options.[1] These other factors—which might favor or disfavor the single sum—include:

[1] By contrast, employers' choices are more sensitive to such differences because their funding and other calculations are aggregate in nature, often covering thousands of employees over many years.

- the tendency of many employees to prefer large, immediate cash payments (without regard to any mathematical comparison of the actuarial values of the single-sum and annuity options);
- the inclination of some employees to prefer a single sum because of the belief that funds invested outside the plan would earn larger returns than any growth that might occur if some or all of the benefits remained in the plan (again without regard to actuarial comparisons);
- the current environment, where an annuity guaranteed for life may be more preferable because it will always tend to be more secure than a single-sum payment, which might diminish in value if the employee invested it outside the plan (again without performing or studying actuarial comparisons);
- the fact that some plans heavily subsidize early retirement annuities but not singlesum options, so that the early retirement annuity has a significantly greater actuarial value than the single sum;
- the expectation of an employee who is in ill health that his or her life expectancy will be brief and that a single sum payment is therefore preferable almost without regard to the comparative actuarial analysis; or
- the wide differences in the availability of single-sum options among defined benefit plans sponsored by various employers—some offering no single sums (with the possible exception of involuntary cashouts), others offering single sums only at retirement age, and others offering single sums upon termination of employment at any age[2]; and
- the strong tendency of hybrid plan designs, which portray the single sum as the presumptive form of benefit, to move people to a single-sum payment (in fact, the hybrid plan design may well become the most dramatic new factor promoting a shift from annuities to lump sums).[3]

Factors such as these generally overwhelm the effect a particular level of interest rate will have on the likelihood that a given individual will opt for a single sum as opposed to an annuity. Employees choosing between lump sums and annuities do not generally think or behave like actuaries. This is further evidenced by the fact that it is not unusual for participants in traditional defined benefit plans to choose unsubsidized lump sums over subsidized early retirement annuities, even when the latter are actuarially far more valuable. Such plan designs are not uncommon, and are yet another reason why interest rates for lump sum purposes can reasonably be lower than the rates that apply for plan funding purposes.

Reduced Lump Sum Amounts May Encourage Plans to Offer Lump Sum Option

Lower interest rates for determining single-sum options, which result in larger single-sum amounts, may discourage at least some plan sponsors from offering single-sum options. Conversely, legislation increasing the level of the interest rate benchmark for computing single sums would likely have the effect of increasing the number of plans offering single sums (and the number of plans offering single sums at termination of employment instead of only at early retirement age) by making single sums less costly for the plan. (This is in addition to generating more nonconsensual single-sum payments by pushing more employees below the involuntary cash-out threshold, as discussed above.) As a result, such a change would not only reduce lump sum benefits across the board, but may result in even greater leakage from the defined benefit system.

Single-Sum Payments Should Not Always be Avoided

It is not even so clear as a general proposition that single-sum payments are to be avoided because they necessarily promote more leakage of benefits. Many pension distributions are made when employees leave their jobs before reaching retirement age. At such a point in an employee's life, a single-sum payment might be the best choice from a policy standpoint, provided it was rolled over to another employer plan or IRA. By contrast, an immediate annuity could begin the consumption of retirement savings before retirement age; and leaving the benefit in the former employ-

[2] Defined benefit plan sponsors that offer single-sum distributions generally are not required to do so, just as they are not required to make single-sum cashouts of small benefits; they choose to do so.

[3] In fact, plan sponsors' interest in offering single-sum distributions—whether responding to or stimulating employee interest in single sums, or some of both—has been one of the motives for the widespread conversion of traditional defined benefit plans to cash balance plans. Many cash balance plans present the single sum to employees as the presumptive form of benefit. And cash balance plans, far more often than traditional defined benefit plans, typically offer lump sums at termination of employment as opposed to only at retirement age. Accordingly, cash balance participants ordinarily decline the annuity (which the plan is required to offer) in favor of the lump sum.

er's traditional defined benefit plan might well cause the value of the benefit to erode with inflation. While a single sum is the form of payment that is most at risk to be consumed before retirement, it is also the form that may best serve the preservation of retirement savings through the rollover of such funds. Again, it is not the lump sum that should be avoided, but the premature consumption of those funds prior to retirement. In fact, larger lump sums, if preserved over time, will ultimately lead to greater retirement security.

Preserving the Value of Single-Sum Benefits Need Not Cause Underfundina

Some have urged an increase in the interest rate for single-sum benefits (to an amount equal to the annuity rate) on the ground that plans that pay single sums will otherwise become underfunded or "defunded." However, the principal problem here appears to be constraints imposed by the IRS on the ability of underfunded defined benefit plans to fund for projected single sums as opposed to annuities.[4] One possible solution would be to change the IRS position to clearly allow plans to fund taking into account the size and frequency of anticipated single-sum payments.

Congress Has Other Means to Promote Preservation

Congress has more positive and more effective means of promoting preservation of benefits than reducing benefits that are paid in single-sum form. For example, the law can encourage annuities, rollovers, and plan-to-plan transfers, while discouraging early withdrawals that are not rolled over or transferred. We applaud the Committee, and the leadership of Chairman Grassley and Senator Baucus, for enacting important benefit preservation measures as part of the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA). In addition to liberalizing the availability of tax-deferred rollovers, EGTRRA, in section 657, provides for automatic rollover of involuntary cash-outs to IRAs unless distributees explicitly direct a different disposition. (The effective date of the automatic rollover provision will be effective pending guidance from the Department of Labor.) Such changes, strongly supported by AARP, are the types of changes that will promote preservation without reducing benefits.

Interest Rate Policy Should Address Needs of Both Employers and Employees

Plan sponsors have valid concerns about their funding obligations, particularly following Treasury's decision to stop issuing the 30-year Treasury bond. At the same time, employees have a valid interest in the preservation of their benefits, including those that take the form of a single-sum payment. This point was made repeatedly and forcefully to Congress by constituents receiving single-sum payments after enactment of GATT and the Retirement Protection Act, which reduced single-sum payments by raising the statutory interest rate. Aggrieved pension participants blamed Congress and the Executive Branch for not only the portion of the reduction in single sums that was attributable to the legislative change, but also the portion of the reduction that was attributable to the rise in interest rates that occurred shortly after the legislation was enacted. We can once again expect a similar reaction from participants whose lump sums have been reduced by an act of Congress.

Conclusion

While employer plan funding concerns are important, Congress must also recognize the needs of individuals. The conservative 30-year Treasury rate is an appropriate single sum benchmark that recognizes the shift of risk and cost to the individual and a rate consistent with the 30-year Treasury rate should be maintained. Should Congress deem it appropriate to provide funding relief to plan sponsors, that relief should not come at the expense of reductions in individuals' guaranteed benefit amounts. This is particularly true at a time when employees are already struggling with significant declines in their personal and retirement savings accounts. Congress should therefore prescribe different interest rates for these different purposes to address the legitimate needs of both employers and employees.

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[4] The Pension Practice Council of the American Academy of Actuaries has stated that "[I[f participants can elect lump sums (generally determined using a 30-year Treasury rate or a possibly lower plan rate), then plans should be allowed to use that lump sum interest rate in determining liabilities." Parks, J. and Gebhardtsbauer, R., American Academy of Actuaries, Alternatives to the 30-Year Treasury Rate), July 17, 2002, page 8, n15. The actuaries suggest revising IRS Notice 90–11 "to allow the actuary to determine a plan's liabilities reflecting expected lump sum amounts for that percentage of participants who are expected to elect lump sums. . ."

STATEMENT OF JAY HINZE

Dear Chairman Grassley,

I would like to take this opportunity to provide a written statement for record regarding the U. S. Senate Committee on Finance hearing on 3–11–03 "The Funding Challenge: Keeping Defined Benefit Pension Plans Afloat".

I am concerned about the lack of balance of witnesses during the hearing. Clearly the voices of the American Academy of Actuaries, the American Benefits Council, the ERISA Industry Committee and the Pension Benefit Guarantee Corporation are one sided. Their voices were balanced by a lone opposing view—a pilot for U. S. Airways.

As a 28 year employee of Owens Corning I would like my voice to be heard. I think I speak for millions of workers around the country who are concerned that pension rules will be changed to benefit corporations at the expense of pensioners. These industry lobbyists are colluding to change the pension interest rate benchmark from the 30-year treasury bond rate claiming that this rate is artificially high. This rate is governed by the free market just as the stock market, real estate market, gold and bond market. In fact this rate has increased by about 0.03 percent since your hearing last week based upon free trade.

The lobbiest claim that retiring employees will take the lump sum distribution jeopardizing the future of the retiree and his spouse. The reality is that retirees will invest the money in the companies these representatives are trying to save. It is far more risky to take the annuity—especially if that annuity is not fully insured by the PBGC.

Corporate leaders have got their pension plans in trouble by making very unrealistic assumptions about the returns of their plans. High expected returns have enabled them to under fund their plans. Even today rates of over 9 percent are being used in their forecasts. As a result companies can artificially inflate their income to lure investors. We are all feeling the pain of poor stock market performance. What average pensioner would use a rate of 9 percent this year to forecast his retirement income?

Chairman Grassley, I have seen my 401 K investment in Owens Corning stock go from $40/share to $0/share due to our bankruptcy filing. I have lost much of my 401 K investment. A few years ago Owens Corning changed its pension from a defined benefit plan to a defined contribution plan. Although I was "grandfathered" under the old plan, this plan was frozen in 2000 costing my pension thousands of dollars.

The lobbyists at your hearing would like to strip my pension further by changing the benchmark 30-year treasury to a 30 Corporate rate. According to the statements made during your hearing, this would save corporations about 20 percent. When considering their proposal remember that this savings will come at the expense of workers. It will especially hit workers like me who are within 2 years of retirement—I would need to work 4 more years to make up for this loss in my pension.

I ask that you turn down the proposals by the lobbyists. Thank you for listening to my point of view.

STATEMENT OF MICHAEL PESKIN

The Need for Change in Pension Funding Regulations
Written Testimony to the Senate Finance Committee
Michael Peskin
Managing Director, Morgan Stanley
March 14, 2003

As head of Morgan Stanley's Global Asset Liability Management Group, I have been helping corporations and institutional investors on pension finance issues for many years. I am pleased to submit the following testimony to the Committee of Finance, United States Senate, with the intent of helping to improve the retirement system.

Executive Summary

The funded status of pension plans has dropped precipitously since the end of 1999. The fall in funded status was caused by a large drop in assets accompanied by a large increase in liabilities. The assets and liabilities moved in opposite directions because of a huge asset liability mismatch (i.e., the assets could have been invested to move in tandem with the liabilities but were not). The reason for the huge asset liability mismatch is partly explained by the funding regulations, which are poorly structured and encourage the mismatch. The structure of the funding regulations needs to be corrected to protect the pension system on a long-term basis.

The primary purpose of minimum funding requirements is to secure (collateralize) the benefit promise made to participants. To the extent that the PBGC guarantee, which is financed by premiums from plan sponsors, also secures benefits to participants, the funding (collateral) works to protect other plan sponsors from having to bear too high a PBGC premium cost. As the PBGC premium rises, it motivates strong companies to terminate their pension plans and leave the system while simultaneously discouraging companies from starting new plans.

The appropriate minimum funding standard is thus one that ensures a minimum desirable level of collateral to protect the pension system from bankruptcy of plan sponsors. It is particularly important to protect the pension system from systemic bankruptcy that can occur in protracted downturns. A very simple rule would suffice. An example of such a rule is that plans should be funded to at least, say, 60% of the liabilities measured at treasury rates. If the collateral (funding) drops below that level it must immediately (within 12 months) be topped up. Such a rule would not only be far more conducive to better asset liability management and a far sounder pension system, but would also change the funding rules to be transparent, comprehensible and short.

Instead, the funding regulations are focused on capital budgeting (spreading contributions over time) rather than on maintaining a minimum level of funding. This encourages companies (especially weak companies) to take excessive risk. For example, three years ago many companies had pension surpluses. They could have invested assets to move in tandem with liabilities to ensure that they would remain in a surplus position with respect to the liabilities accrued to that point. Most chose instead to take significant bets to

reduce future costs. This was encouraged and facilitated by the minimum funding rules that allow lengthy deferral of losses. It was also encouraged by the PBGC insurance system, which significantly reduced the risk to participants in the event of bankruptcy by passing the cost of any underfunding in their liabilities to other companies in the pension system. Had the minimum funding rules provided for immediate contributions if the funded status dropped below some threshold, companies would have chosen to better manage to that threshold. It would not have prevented risk-taking but would have encouraged appropriate asset liability management.

It is important that liabilities be measured accurately with a liquid term structure of interest rates. This would mean that there would be appropriate capital market instruments or securities available to enable companies to match or manage the liability risk. It is pointless to create an artificial liability measure that makes it impossible for companies to manage against or hedge. The only two bond yield curves that meet these conditions are the treasury curve and the swap curve.

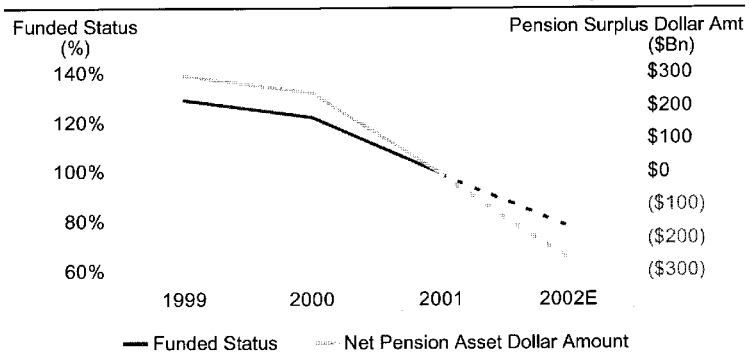
The choice of yield curve need not impact the level of collateral (funding) that is set as the threshold. Any percentage of the liability can be used or any fixed spread can be added to the yield curve in determining the liability, to set the minimum- funding threshold.

Background: The Perfect Storm

The funded status of defined benefit pension plans has dropped precipitously since the end of 1999. As the chart below depicts, the ratio of assets to liabilities (as reported by Corporations in the S&P 500) has fallen from 129% at the end of 1999 to an estimated 78% at the end of 2002.

The net funded position in dollar terms has fallen by over half a trillion dollars from a surplus of almost $300 billion to an estimated deficit of about $250 billion.

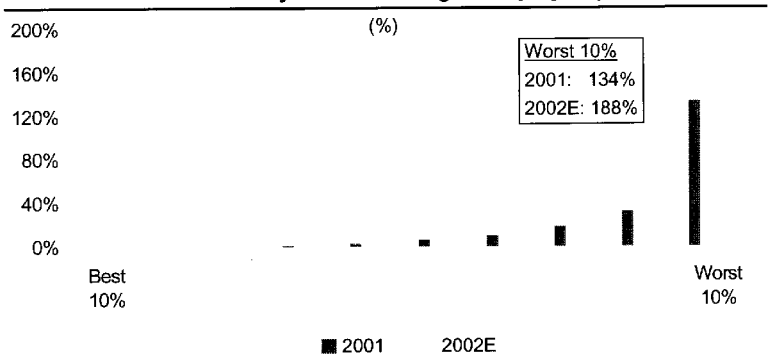
Exhibit 1: Pension Plan Funded Status for S&P 500 Corporations



Assumptions for 2002E: Based on Projected Benefit Obligation (PBO). 50% Equity, 15% International Equity, 30% Fixed Income. 2002E Funded Ratio is based on a 23% decrease in the S&P 500, a 18% decrease in the MSCI EAFE and a 10% increase in the Lehman Aggregate YTD. This estimate assumes a 9% increase in liabilities over the same time period due to changes in interest rates and inflation. Assumes a 6% decrease in assets due to benefit payments.

A combination of falling equity prices and increasing liabilities (due to falling interest rates) caused this dramatic drop in funded status. To compound matters, the size of pension plans grew, while the equity capitalization of the sponsoring corporations decreased, significantly reducing the financial ability of corporations to finance growing pension deficits. Although this is a major problem only for a relatively small proportion of companies, as is illustrated in the following chart, it results in major problems for all companies with defined benefit plans.

Exhibit 3: Pension Liability as a Percentage of Equity Capitalization



The chart divides the S&P 500 companies into deciles sorted by the size of the pension liability to the size of the equity capitalization of the company at year-end. The first three deciles are empty, as only 350 of the S&P 500 companies have defined benefit pension plans. The next four deciles (representing 200 companies) can presumably meet their pension obligations. The pension plans of the last decile (50 companies) present a significant challenge to those companies. The average size of these pension plans has risen to nearly twice the size of the equity capitalization of the corporations, which will make it very difficult for them to finance pension shortfalls. They also present a significant problem to each other and to other companies with significant defined benefit plans through the operation of the PBGC "insurance" transfer system.

The Problem

Many of the corporations in the last decile described above are in danger of bankruptcy, at least partly owing to the operation of their defined benefit pension plans. This would, of course be harmful to all the major stakeholders.

There are three major stakeholders impacted by the ongoing pension crisis:

1) The participants, for the security of benefits in excess of the PBGC guarantees.

2) The plan sponsor investors (stockholders, bondholders and creditors)
   a) For the direct cost of funding their pension plan.
   b) For the indirect cost of funding the shortfall of the other sponsors' plans upon bankruptcy (PBGC guarantee).
3) The current and future employees of US corporations who may be denied defined benefit pension coverage due to the perceived costs and risks of the pension system.

Due to the complexity and lack of transparency in the funding rules, pension finance is very poorly understood. Investors are not able to correctly value pension risk. This is especially true of the contingent cost to investors of the PBGC pension guarantee. This complexity and lack of understanding creates risk and uncertainty, which ultimately gets penalized by the market and discourages the use of defined benefit plans as a means of providing retirement security. This would be a great pity, as a defined benefit pension system can be an important vehicle for delivering post employment security to millions of Americans. The system can and should be redesigned to avoid the kind of problems that have developed. This is not difficult to do and deserves the focus and effort of all involved.

A Deeper Look at the Decline in Funded Status

This very rapid decline could and did happen because pension plan sponsors take two very large bets, both of which turned sour at the same time. If pension assets were invested to match pension liabilities (i.e., a change in capital market prices would have exactly the same impact on assets as on liabilities) then funded ratios would be stable and companies would not be making a bet. If companies do not match assets to liabilities, then they are taking a bet in the hope that the mismatch will work in their favor to reduce costs. This, however, entails risk that the mismatch will work against them.

It is, in general, not the role of government to dictate or bias how companies should invest. The problem is that the current funding rules (together with the PBGC insurance system, accounting practice and actuarial methodology) have worked to heavily encourage the mismatch by pension plans to the cost and detriment of the entire system. Before returning to this topic later in this testimony, I am going to first discuss the extent of the mismatch.

In the chart below, I give an approximate explanation for what happened in the three years 2000-2002.

Exhibit 2: Funded Status (1999 to 2002)

Deflation/ Slow Growth	S&P 500 Level	Interest Rate Level 6.8%	7.4%	7.9%	8.5%	9.0%	
	880	78%	86%	93%	104%	115%	
	1200	95%	103%	112%	126%	140%	
	1470	108%	119%	129%	144%	161%	
	1740	122%	134%	146%	163%	182%	Inflation/ High Growth
	2058	138%	152%	165%	185%	206%	

Assumptions: 70% Equity, 30% FI, Duration 4.5 yrs. Starting funded status based on the average 1999 PBO funded status, 129%, for S&P500 corporations. Ending funded status, 78%, represents the estimated 2002 funded status.

Funded ratios started at 129% with the S&P 500 index level at 1470 and the Moody's AA Long Corporate Bond index (a common index used by pension sponsors to discount liabilities for accounting purposes) at 7.9%. If you look vertically up the table you can see what would have happened to funded ratios if interest levels had remained the same but equity prices moved in line with the S&P 500 index which ended 2002 at a level of 880. Funded ratios would have dropped to 93%, given that pension plans are approximately 70% invested in equities or other equity-like assets. Similarly, looking horizontally, funded ratios would have dropped from 129% to 108% if equity prices had remained the same but interest rates gone down (as they did) by 1.1%. The combination of equities and interest rates going down had the combined effect of reducing funded ratios from 129% to an estimated 78%. (Approximately 60% of the reduction in funded ratio is explained by the fall in equity prices and 40% by the fall in long interest rates).

This chart highlights the two very large bets (asset liability mismatches) taken by most pension plans. The first is a bet that interest rates will rise, or a "duration (interest rate sensitivity) mismatch." The second is a bet that stock prices will rise, or the "equity versus liability mismatch."

The duration mismatch comes about because liability cash flows are typically pension payments to participants extending well into the future and thus have characteristics of very long duration bonds (i.e., bonds maturing in 30 years). The typical interest rate sensitivity (duration) of pension liabilities is about 12 meaning that the amount of money needed to finance the pensions promises rises by about 12% if interest rates fall by 1%. Pension plans typically invest only about one third of the assets in bonds and the typical bond duration is only about 4 years. So, for example, if interest rates fall by 1%, the liabilities rise by 12%, but the bonds only rise by 4% and the bonds are only one third of the assets. The result is that a plan that had a 100% ratio before the interest rate change has a 90% funded ratio after.

The equity mismatch comes about because pension plans are typically about two thirds invested in equities, which do not behave like long bonds (the liabilities). If equities fall this usually results in a drop in funded status.

Funding Rules a Source of the Problem

The current funding rules have biased corporations in favor of the mismatch by not setting a clear minimum-funding threshold. The rules have fallen between the objectives of spreading funding over time (a natural budgeting objective of corporations) versus setting a firm minimum floor level of funding that, when penetrated, must be immediately funded.

A pension plan is best viewed as a "collateralized bond obligation" of the corporation. The company "borrows" money from the plan participants and promises a pension in exchange (In other words, current compensation of employees is reduced in exchange for deferred compensation). In the absence of minimum-funding rules this would be an unsecured promise from the company and participants would lose their pensions if the company went insolvent. The funding rules cause the company to set aside assets (collateral) to help secure the bond. The rules determine the level of collateral required and the time by which the requirement must be met.

The PBGC guarantee provides a further layer of security by means of a pass-through cost to other pension plan sponsors. The PBGC effectively provides that all surviving plan sponsors pay the cost of a shortfall on bankruptcy (up to the level of the PBGC guarantee) through premiums. In the absence of strong minimum funding requirements, there is no limit to how high premiums can get and no insurance that companies can buy to protect themselves from higher PBGC premiums.

The current funding rules rely on various smoothing techniques that are directed at spreading the funding over time. While it is appropriate for companies to allocate capital to the pension plan on a regular budget, it should not be the business of the government to dictate the pace of funding. It is the business of government, however, to ensure an appropriate minimum level of funding. This should be the only focus of the funding rules and the only constraint placed on the pace of funding.

These funding rules are extremely complicated. I am including an internal worksheet for calculating the minimum required contribution in the Appendix. In fact, the worksheet understates the complexity of the actual required calculations but serves as an illustration of the issue. There is no need for this level of complexity and the rules make little sense from a capital markets perspective.

The primary purpose of minimum funding requirements is to secure (collateralize) the benefit promise made to participants. To the extent that the PBGC guarantee, which is financed by premiums from plan sponsors, also secures benefits to participants, the funding (collateral) works to protect other plan sponsors from having to bear too high a PBGC premium cost. As the PBGC premium rises, it motivates strong companies to terminate their pension plans and leave the system while at the same time discouraging companies from starting new plans.

The appropriate minimum funding standard is thus one that ensures a minimum desirable level of collateral to protect the pension system from bankruptcy of plan sponsors. It is particularly important to protect the pension system from systemic bankruptcy (and a possible domino effect) that can occur in protracted downturns. A very simple rule would suffice. An example of such a rule is that plans should be funded to at least, say, 60% of the liabilities measured at treasury rates. If the collateral (funding) drops below that level it must immediately (within 12 months) be topped up. Such a rule would be far more conducive to better asset liability management and a sound pension system

Discount rate for calculating liabilities

The liabilities for setting the minimum funding threshold should be calculated using a yield curve (term structure of interest rates) that is transparent (readily available and unambiguous).

Furthermore, the yield curve must be investable. This is important in order to allow companies to manage the threshold through hedging (matching assets to liabilities) or the use of other liquid capital market instruments.

The only two yield curves that pass these tests are the treasury curve and the swap curve.[1]

Note that the liability discount rate does not set the minimum-funding threshold. The minimum-funding threshold can be set by reference to the liabilities calculated (e.g., 60% of the liabilities so calculated).

Importance of Transparency

The capital markets have great difficulty in pricing when significant pension liabilities are present.

If, for example, a company wishes to issue a bond maturing in 2006, then only the pension funding required prior to 2006 impacts the possibility of a default and the interest that a bond buyer would demand in compensation for that risk. If no funding were required prior to 2006, bond buyers would not have to worry that the pension funding could cause the insolvency of the company prior to the bond principal being paid.

In general, the lower the pension funding requirement, the lower the cost of borrowing to the corporation. This in turn benefits the equity price of the plan sponsor. Thus a pension plan that merely pays the benefits as they are due, and does not require funding, will be the cheapest for the plan sponsor.

On the other hand, the lower the funding requirement, the higher is the risk to participants and the risk to other corporations responsible for meeting the cost of the unfunded

[1] For a more complete treatment of this topic see "Discount Benchmarks for Defined Benefit Pension Plans" – James Moore and Michael Peskin, Global Pensions Quarterly (August 2002)

liabilities in a bankruptcy.[2] The participants may demand higher pay in compensation but other companies have no way of charging for this increase in risk that they bear.

In other words, reducing the funding requirements increases the value of weaker plan sponsors but reduces the value of stronger plan sponsors. Most companies and investors understand the direct cost of higher funding requirements. They have little or no idea as to the magnitude of the potential cost of insuring the rest of the system, beyond the current level of PBGC premiums that have been fixed for some considerable time. This may cause companies to prefer lower funding requirements even though the stronger companies are better off with stronger funding standards.

Transparency in the system would help everybody understand these issues better to the great advantage of the economy and the pension system.

Thank you very much for the opportunity to present my views on this important topic. I would be happy to respond to questions or to provide additional material.

[2] For a more complete treatment of this topic see "Key Issues in the Design of Pension Legislation" – Michael Peskin, La Revue De L'AFPEN, (November 1996)

Appendix 1

Calculating Minimum Required Contribution

Calculating Minimum Required Contribution

Minimum contribution (MC) calculation is done once a year at the end of each year. Assume that the calculation described below is done at the end of year t (equal beginning of year t+1).

Step 1. Determine Credit Balance as of end of year t before full funding limitation credit:

Credbal (t) = [Credbal(t-1) –NC(t-1) – AmortPay(t-1)] *(1+Fundrate) + EcontribWInt (t),

where AmortPay(t-1) is the total annual amortization of loss, change and assumption bases determined at the end of year t-1, EcontribWInt(t) is employer contributions over the year t accumulated to the eoy t with FundRate, NC(t-1) normal cost as of eoy t-1.

Step 1a. Applying full funding limitation credit to the credit balance at time t.

If the plan is not in full funding status at the end of **year t-1**, the above formula calculates credit balance at time t which will be used in all calculations below. However, if the plan is in the full funding status which is determined at the eoy t-1 calculation (with all variables accrued by one year of interest), the credit balance Credbal(t) must be credited with additional full funding limitation (FFL) credit. The additional credit is as follows:

FFL Credit (t) = Max{0; [NC(t-1)+ AmortPay(t-1)] *(1+Fundrate) – FFL(t)},

The FFL(t) is determined by the accrued liability and OBRA/RPA full funding limitation tests @ the eoy t-1. See the description of the test below. The other variables of FFL Credit(t) are also known at time t-1, therefore the FFL Credit(t) is fully determined at time t-1.

For example, if at time t-1 the plan was well funded meaning that FFL(t) is zero, the maximum credit to the Credit Balance (t) would be the normal cost @ year t-1 plus payments of the bases between t-1 and t both accumulated with the interest. This credit will cancel the same two terms in the formula for the Credbal(t) above and therefore the credit balance at time t would be just

Credbal(t-1)*(1+Fundrate) +EconteribWInt(t).

Once again, the FFL credit to the credit balance at time t is solely defined at time t-1. It should be an argument of the function Calc_MinContrib(t,……) as well as funded status at t-1 (fflstatus, true or false) indicator. The FFL credit and the determination of fflstatus will be done in the same function Calc_MinContrib(t-1,……) at time t-1. When the function is run first time, at the end of year 1 or quarter 4, the fflstatus at time zero must be hardcoded and if it's "true", the maximum credit to the Credbal(1) equal
[NC(0) + AmortPay(0)]*(1+Fundrate) must be given.

Step 2. Determine MC before applying full funding limits:

First, update the three amortization bases: assumption, change and loss. This is done by first calculating the total amortization amount from the three bases, reducing the bases by the corresponding amortization amounts, moving them by one year (so that for example the base in the 2nd year of payment becomes the base in the 3rd year of payment) and calculated the new bases.

Current loss base is defined as follows:

UAL(t)-(UAL(t-1) + NC(t-1))*(1+Fundrate) + EconteribWInt(t).

Note that the current loss base does not affect the MC contribution at the eoy t.

MC (t) is a minimum contribution determined at the end of year t for the payment in the plan year t+1 and possibly in year t+2.

Calculate the MC as follows:

MC(t) = (NC(t) – Credbal(t) +AmortPay(t))*(1+Fundrate)

Determine if MC(t) should be increased by Deficit Reduction Test:

If current funded ratio is less than 0.9, the minimum contribution may be increased to match the deficit reduction contribution if it's higher.

The funded ratio is determined as the ratio of Assetav over RPA accrued liability. If funded ratio is less than 0.8 than the deficit reduction test is applied, if it's between 0.8 and 0.9, additional conditions which involve last five years of funded ratio history are checked.

The deficit reduction contribution is calculated as follows:

DRContrib := Max[0, (0.3-0.4*Max[0,(FundedRatio-0.6)])]*(RPA_AL-Assetav);

The minimum contribution is increased to DRContrib if the latter is higher.

Step 3. Determine ERISA Full Funding Limit:

Note, this full funding limit will be used to determine FFL credit to the credit balance @eoy t+1. That's why the index (t+1) is used.

The Minimum Required Contribution MC(t) will be determined as the minimum of the two quantities subject to the zero floor:

1) MC(t) defined above;
2) FFL(t+1) –Credbal(t)*(1+Fundrate);

Where FFL(t+1) = Max(RPAFFL(t+1), Min[ERISAFFL(t+1), OBRAFFL(t+1)])

For the determination of ERISAFFL(t+1), OBRAFFL(t+1) and RPAFFL(t+1) see below.

ERISAFFL (t+1) is ERISA full funding limit calculated based on the values of accrued liability, normal cost and assets as of end of year t but accumulated to the end of year t+1 with interest (1+ Fundrate)

ERISAFFL (t+1) = [AL(t) + NC(t)]*(1+FundRate)
- [Min{MV(t),AV(t)} - Credbal(t)]*(1+Fundrate),

subject to zero minimum.

Step 4. Additional OBRA/RPA ffl tests.

In order to determine the full funding, two more ffl variables based on the current liabilitiy values must be calculated.

The final full funding limitation FFL is defined as follows:

FFL(t+1) = Max(RPAFFL(t+1), Min[ERISAFFL(t+1), OBRAFFL(t+1)]),

where OBRAFFL(t+1) and RPAFFL(t+1) are defined below.

OBRA FFL is defined similarly with ERISAFFL:

OBRAFFL (t+1) = 1.55*[OBRACL(t) + OBRA_CLNC(t)]*(1+FundRate)
- [Min{MV(t),AV(t)} - Credbal(t)]*(1+Fundrate).

And subject to zero minimum.

And RPAFFL:

RPAFFL (t+1) = 0.9*[RPACL(t) + RPA_CLNC(t)]*(1+FundRate)
- Min{MV(t),AV(t}*(1+Fundrate).

If ERISAFFL(t+1) is zero, then the calculation of OBRAFFL is not really needed because the Min [ ] in the formula for FFL above will always pick zero. Only if ERISAFFL is not zero the OBRA full funding test can possibly change the value of FFL. That is, the addition of OBRA ffl test increased the probability of going into the full funding status. However, the RPA full funding test is setting the minimum floor to the FFL (FFL is no less than RPAFFL) meaning that the addition of RPA ffl test narrows the possibility of going into the full funding status.

Step 5. Test Full Funding Status:

If FFL (t+1) is <=Credbal(t) *(1+Fundrate) meaning that the adjusted asset value exceeds actuarial liability, the minimum required contribution is zero. This follows from the formula in the item 2) of the minimum contribution which is as follows:

Minimum of the two quantities subject to the zero floor:

1) MC(t);
2) FFL(t+1) –Credbal(t)*(1+Fundrate);

Where MC(t) = (NC(t) – Credbal(t) +AmortPay(t))*(1+Fundrate).

Next, the plan is tested if it's in the full funding status. If the plan is in the full funding status due to the ERISA ffl test only, reset all amortization bases to zero even if they are positive. If the ERISA ffl test does not signal full funding status and OBRA ffl test does, keep track of the bases.

If the plan is in full funding status, do not reset Credbal as – UAL. In this case the equation of balance: Accumbases(t) – Credbal(t) = UAL(t) would not hold. Accumbases(t) would be equal to 0, Credbal(t) would be defined as above and UAL (t) = AL(t) – Assetav(t).

The general formula for the FFL credit to the minimum contribution calculated so far (meaning the reduction in the MC(t)) is as follows:

FFL Credit (t+1) = Max{0; (NC(t) +AmortPay(t))*(1+Fundrate) – FFL(t+1)}.

As a special case, it results in zero MC when the condition 1) above holds. If FFL(t+1) is less than NC(t) with interest and if amort. bases are zero, the difference is used to reduce the min. contribution.

Note that the same FFL Credit(t+1) calculated at eoy t will be applied as a credit to the credit balance calculation at time t+1, the same calculation as the one described in Step 1 @ time t.

Step 6. Full Funding Test For PBGC Purposes

If the MC calculated above is zero, the plan is fully funded for PBGC purposes.
If the MC is not zero, the plan is fully funded for PBGC if MC>FFLMax,
where FFLMax is calculated as follows:

FFLMax = Max[RPAFFL; Min[ERISAFFLMax; OBRAFFLMax]], where

ERISAFFLmax = Max[0; ERISAFFL -Max{0; Credbal(t)]

OBRAFFLMax = Max[0; OBRAFFL -Max{0; Credbal(t)]

Lastly, If the minimum contribution is required, the portion of the contribution paid in the year t+1 is equal to the minimum of 90% of the MC calculated thus far and 100% of last year's contribution. The remainder is paid at the 3rd quarter of year t+2.

Appendix 2

Discount Benchmarks for Defined Benefit Pension Plans

Discount Benchmarks for Defined Benefit Pension Plans

Abstract

This paper reviews the current landscape of pension cash flow discounting for financial disclosure and funding purposes. It discusses pitfalls in current methodology and common benchmark rates. A number of criteria are presented as a basis for evaluating discount rate benchmarks with potential candidates evaluated under these criteria. LIBOR swaps arise as the strongest viable candidate for replacing the current flawed benchmarks

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The Problem

Perhaps the single largest assumption driving the liability valuation for defined benefit pension plans is the rate at which projected benefit cash flows are discounted. Promised pension benefits can represent cash flows that will not be paid for decades. This translates into liabilities with duration of 15 years or more for many plans. As such, small differences in discount assumptions translate into meaningful differences in liability values. In the United States there are a number of different rates used for different purposes: required contribution rates, PBGC insurance premiums, lump sump cash outs, and annual financial accounting statements all use different interest rates for the purpose of determining liabilities. The underlying rates of greatest importance are the 30-year Treasury bond rate and a rate proxying "high-quality fixed-income investments currently available and expected to be available during the period to maturity of the pension benefits"[1]. The latter is generally accepted to be the rate of return on AA-rated bonds of significant maturity. Legal minimum funding requirements and other current liabilities for governmental purposes are keyed off the 30-year Treasury rate, financial reporting is tied to this AA rate.

Given the downward trend in rates over the last decade, combined with particular trading anomalies in the market for the 30-year bond in 2001, attention is now becoming more focused on the rates used to discount the liability streams. Indeed, the actuarial community has expressed concern about "inordinately low 30-year treasury rates."[2]
While swings in interest rates produce bigger swings in liability levels, a steady downward march in interest rates produces an ever-steepening ascent in liabilities. Although most of the decline in rates over the past decade is due to the systematic decline in inflation through the nineties, recent treasury buy-backs and the decision to halt issuance of new 30-year bonds have induced an added scarceness premium for the long bond.

The allowable rates used for legal funding purposes introduce two additional complications. The base or current liability rate is not the 30-year bond yield itself, but a trailing weighted average of past yields.[3] The second complication is that discounting is not necessarily done at the current liability rate, but any a rate within a band about the current liability rate. The width of the band is altered periodically by legislation.
The current liability valuation and the rate used for discounting are not generally publicly disclosed.

Contrast this with pension liabilities divulged as part of annual financial disclosure. SEC guidance here is to use a rate consistent with long dated, AA credits as of the plan's valuation date. While the specification of a rate as of a certain date is preferable to a non-market moving average, the AA bogey itself allows for a surprising degree of wiggle room. Specifying a benchmark discount rate based on credit quality alone ignores yield

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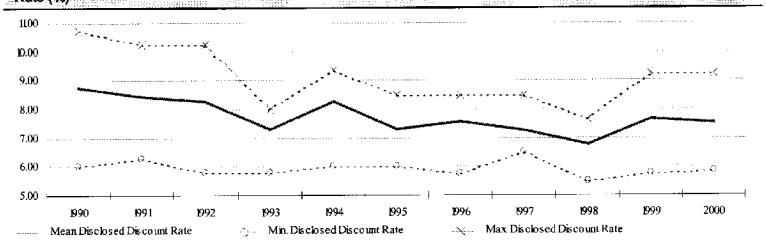
[1] *Statement of Financial Accounting Standards No. 87: Employers' Accounting for Pensions.*
[2] Turpin and Gebhardtsbauer, "The Impact of Inordinately Low 30-Year Treasury Rates on Defined Benefit Plans," American Academy of Actuaries.
[3] The current liability rate is a 40/30/20/10 weighted average of the current 30-year yield and 30-year yields from previous years.

variation with a specific credit rating. It also ignores the potential yield effects of bonds with the stated maturities, but with embedded interest rate optionality. Any vagaries in the language specifying discount rates for funding or accounting purposes lead to liability valuations that are fuzzy at best and potentially manipulable at worst. This makes individual security analysis more tenuous and comparison of liability and expense numbers across companies difficult.

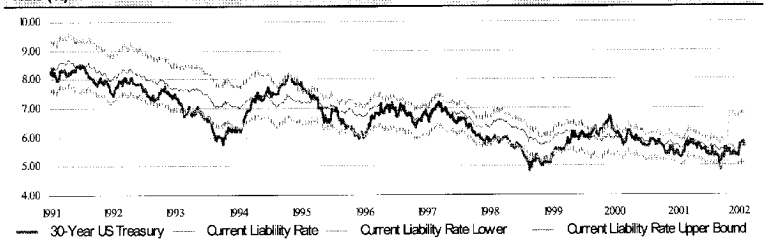
Figure 1a illustrates the mean path of actual disclosed discount rates from company 10K's for the past decade as well as the minimum and maximum rates as compiled by Watson Wyatt. Some variation about the mean rates is to be expected as not all plans report on the same date and there is no explicit discount rate to be used. Use of lower discount rates than the average can be attributed to plans with frozen liabilities or companies that use conservative valuation and disclosure assumptions. Plans with rates substantially above the mean merit some suspicion. It is interesting to note that the upside variation in discount rates attributable to companies with aggressive assumptions was sharply curtailed after the SEC's 1993 announcement that its enforcement staff would examine cases where rates seemed suspiciously high. However, the SEC has never publicly pursued action against plans for high discount rates and that upside variation seems to have re-emerged.

Figure 1a: Historic Disclosed FAS87 Discount Rate



Source Watson Wyatt

Figure 1b: Current Liability Rate vs. U.S. Treasury Yield



Source Bloomberg

Shown in the lower panel are the running 30-year treasury rates with the derived current liability interest rate. About the current liability rate (CLR) are the bounds for permitted rates: 90% and 105% of CLR. These are legally prescribed maxima and minima for liability determination. The upper limit was originally set at 110% by OBRA '87, lowered to 105% by the Retirement Protection Act of 1994, and recently widened by Congress to 120% of CLR for 2002 and 2003. This was primarily intended as temporary economic relief for companies hit hard by the 2001 recession.

The smoothing mechanism in the current liability rate reduces the volatility seen in the 30-year bond. This may be desirable for determining current contributions and for capital budgeting as it generates contribution patterns that are relatively stable over time. However, it gives a misleading picture of liabilities. Obligations settled in the market today cannot take advantage of higher rates in the past. Nor can they be settled or defeased at a non-market rate. The trailing average systematically overstates rates when yields are falling, and understates when yields are rising. The additional latitude that permits sponsors to discount cashflows with any rate in the wide band surrounding the CLR only serves to further obfuscate the true liability picture.

The advent of ERISA in 1974, and subsequent revisions with OBRA '87, and the Retirement Income Security Act in 1994 strengthened the position of plan participants. Similarly, the adoption of FAS 87 vastly improved pension disclosure over what was previously available, giving shareholders a clearer picture of the liabilities in the companies they hold. While it is not uncommon for companies to keep dual books for disclosure and tax purposes, valuing pension liabilities using two inconsistent benchmarks would seem to needlessly complicate matters. Convergence to a single benchmark discount rate curve, or variants based on the same standard, would bring clarity to an area that is currently relatively opaque. Ideally, a single rate or set of rates would be applied for both disclosure and funding purposes to reduce confusion among plan sponsors, plan participants, analysts, and shareholders.

Criteria and Considerations

Adoption of a universal discount rate (or curve) should at a minimum maintain the aims of FAS 87 which argues that "assumed discount rates shall reflect the rates at which the pension benefits could be effectively settled."[4] The AA proxy for liability defeasance arises largely as a matter of convenience as obtaining annual quotes on non-standard group annuity contracts is, at best, an onerous task. One could easily argue that insurance companies' investments are not limited to AA or better rates and generally average high BBB to low A in credit quality. Conversely, rates implied from annuity quotes would embed other charges such as reserve costs, underwriting expenses, and risk based capital charges. The AA guideline received the endorsement of the SEC in 1993 when the agency put reporting companies on notice that it could require earnings restatement for those companies whose discount rates were not in line with a AA benchmark rate. If valuation consistent with true defeasance of the liabilities is the aim, in many cases a AA rating may not be conservative enough, while truly riskless assets like Treasuries are at

[4] *Statement of Financial Accounting Standards No. 87: Employers' Accounting for Pensions.*

certainly too conservative.[5] A discount rate consistent with that of a AA level is thus best seen as a minimum credit requirement.

In addition to a minimum rating threshold, any reference rate should have some sense of permanence as a benchmark. This was made abundantly clear during the last week of October 2001 when the US Treasury announced it would no longer issue 30-year bonds.[6] Use of any single-issuer benchmark would present the same potential problems – a treasury, corporate or governmental, will use its best judgement to balance its cost of funding with other risk management needs. This will not always result in issuance of any specific maturity.

Use of an index reduces the risk to capriciousness of an individual issuer as well as any issuer-specific idiosyncrasies in price. Index creation requires collection and monitoring of a number of bonds with the desired characteristics – here, sufficient credit quality and maturity. There are a number of issues in index construction, some of which will be discussed in more detail when specific indices are discussed later, but a couple are key – transparency and optionality in the underlying bonds.

Ideally a user can "look through" an index to see its individual components, weighting schemes, and any adjustments made to component bonds. This transparency in index construction enables users to assess the applicability of an index to their needs and sensitivity to movements in underlying components. Transparency ensures that the index is not manipulable. The index should also be readily available via Bloomberg, Reuters, the Internet, Federal Reserve Release H15, or some other easily accessed source and updated frequently.

Also of concern for our purposes is inclusion of bonds with embedded derivatives. Callable bonds without make-whole provisions are of particular concern. Inclusion of callable bonds artificially raises the yield on the index, as bondholders must be compensated for selling issuers the option to call the outstanding bonds and refinance when rates are low. This is of particular concern for an index of long maturity with restrictive credit quality terms due to the limited availability of candidate debt issues. One solution to make allowance for callable bonds is to calculate their option adjusted spreads (OAS) to derive an option adjusted yield. The derived option adjusted yield represents the true yield of a bond that will remain outstanding to maturity. This compromise may or may not be warranted given the desire for transparency, as OAS's are model-dependent.

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[5] Past experience of the authors indicates group annuity closeouts with highly rated life insurers generally run at a cost of 5-15% greater than ABO liabilities determined using FASB specified valuation levels depending on active/retiree plan mix and other plan specific features. This is consistent with Modugno who finds 30-year swaps or agency debt as a good proxy for valuation of plans for insurance settlement. See Victor Modugno, "30-Year Treasury Rates and Defined Benefit Pension Plans," Society of Actuaries Research Project.

[6] This has caused much consternation in the actuarial community as current liability funding rates are directly linked to the 30-year bond rate. OBRA '87 solidified the 30-yr. as the rate of record for government funding purposes. Adoption of a new benchmark would require amendments to ERISA and internal revenue code.

An additional consideration is the tradability of the index or its components. Can an active manager actually replicate the performance of the index without incurring significant basis risk and trading costs? This is of particular concern if assets are being managed with respect to the index. Similarly, it would be a concern for sophisticated pension plans that actively manage their assets relative to liability cashflows discounted by this index.

A final consideration is whether the index can be viewed as part of an interest rate term structure or discount curve. While a single discount rate is a matter of convenience, it may not be an accurate representation of the liabilities for all plans. A pension plan that has been frozen to new entrants and future benefit accruals for a period of time will have liabilities that are significantly shorter in maturity than an ongoing plan with a balance of current employees and retirees. Anticipated cashflows from such a plan should be discounted with rates that more accurately reflect their timing, hence a need for shorter rates consistent with the long rate index.

Candidate Rate Indices

We consider a number of potential candidates for a discount rate using the aforementioned criteria. The indices examined are the 30-year swap rate (dollar LIBOR), two types of bond index - the Moody's Corporate Bond Yield Averages and the Bloomberg AA Industrial index, a recently created traded custodial receipt (TRACER) that replicates a bond index, and agency benchmark bonds. This by no means an exhaustive list. Many more indices are available. In general, all share the relative strengths and weaknesses of each sample alternative with benchmarks of similar construct likely to exhibit many of the same specific concerns. Creating a benchmark index with all the desired characteristics in not an easy task. Table 1 summarizes the performance of the five candidates given the criteria specified.

Table 1	LIBOR Swaps	Moody's Long Term Bond Index	Bloomberg Indices	Tracers	Agency Debt
Sufficient Credit Quality	+	+ / -	+	-	+
Non-Callable	+	-	+	+	+
Transparent (Methodology)	+	-	-	+	+
Permanence of Issue	+	+	+	?	?
Index Readily Observable	+	+	+	?	+
Idiosyncratic Risk	+	+	+	+	-
Tradable	+	-	-	+	+
Yield Curve	+	-	+	-	+

The first potential benchmark for consideration is **interest rate swaps**. To some these may appear as an unnatural choice as they do not represent tangible assets – they are derivatives. Nevertheless, based on the criteria we have outlined swap rates are the best choice as a basis for discounting pension liabilities.

- Swaps represent claims that are of sufficient credit quality.
- Swaps represent non-callable claims.
- Construction of the swap curve is readily transparent representing mid-market quotes available for transaction.
- Outstanding swaps exceed total existing debt and are growing at double-digit levels annually indicating permanence in the market place.
- Swap curves are posted in real time from major data vendors with daily closes posted by the Federal Reserve in bulletin H15.
- Swaps are by definition tradable and represent some of the deepest and most liquid markets in the capital markets.
- Swap rates define a continuous curve that is generally smooth.

Given their suitability for our purposes, but their relatively recent appearance and adoption by fixed income professionals for hedging purposes, some further background on swaps is warranted.

What are Swaps? An interest rate swap represents a contract between two parties to exchange one set of interest rate streams for another based on the same underlying notional basis. Most commonly, it is an obligation to exchange fixed interest payments for floating payments. For US dollar contracts, the dominant standard is the London Interbank Offer Rate (LIBOR). This is the rate that high quality banks and broker dealers charge one another in the interbank market and is generally within a few basis points of where they fund in the commercial paper market. The rate is compiled daily by the British Banker's Association (BBA) which polls a panel of 16 banks, sorts their offered rates and takes the average of the middle two quartiles.[7] Rates go into effect two days after setting.

Panel banks are large banks with international presence and an average rating of AA. The BBA reviews the panel frequently and makes substitutions as warranted for credit deterioration, merger, or other change to a bank's suitability. As such, the implicit credit rating underlying swap rates is better than a notional AA. The spread between swaps and true risk-free rate represents risk inherent or perceived in the financial system. A classic example of this is 1998 when swap spreads and corporate spreads in general widened versus treasuries. This was characterized as a "flight to quality" in the wake of Russian default and the LTCM crisis. Treasuries commanded a premium beyond the ordinary due to their position as an absolute risk-free asset.

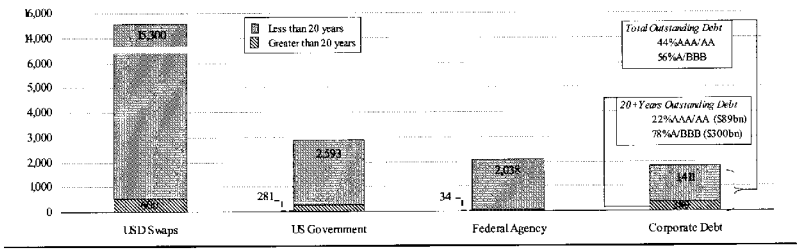
Swap rates represent the fixed rate to be paid by in exchange for a floating rate stream of the same maturity. For example, in a ten-year swap the payer will pay a fixed rate semi-annually to the receiver who will pay a floating rate determined semi-annually (or

[7] Detailed information is available on the BBA website: http://www.bba.org.uk . The panel must consist of at least 8 banks.

quarterly) in return. Amounts are netted so that there is a one-way semi-annual payment. For short-dated swaps, fixed rates are determined based on prevailing LIBOR rates and Eurodollar futures with the swap curve reflecting movements in these markets. Longer dated swap rates are built up from the short end of the curve and determined based on market supply-demand dynamics and arbitrage principals. Information flow is key to knowing where various participants in the market are positioned. Improvements in information technology have paralleled growth in the swaps market. Faster dissemination of information leads to better price discovery, matching of buyers and sellers, and subsequently, a deeper, liquid market, and tighter bid-ask spreads. Real-time information on swap prices is available from a number of sources including Telerate, Reuters, and Bloomberg. According to the BIS, the notional value of US dollar interest rate swaps have grown from approximately $8.5 trillion in 1998 to $15.9 trillion by mid-2001 as swaps have surpassed treasuries as the most frequently used instrument for hedgers of mortgages and corporate debt.

Figure 2 illustrates the relative size of the swap market as compared to US Treasuries, agency debt, and non-callable investment grade debt. Although swaps of 20 years or longer make up a relatively meager 3-4% of the swap market[8], given the size of the swap market, this exceeds treasury issuance of similar maturities, and is far greater than either agency or AA and AAA-rated non-callable corporate debt. Further, given the growth in swap usage, the outstanding notional of long-dated swaps should increase in time. Contrast this to a long Treasury bond market that is shrinking as the stock of total treasuries outstanding is flat to shrinking and there is no new issuance of 30-year bonds.

Figure 2: LIBOR Swaps and Outstanding Debt by Type
Billion ($)



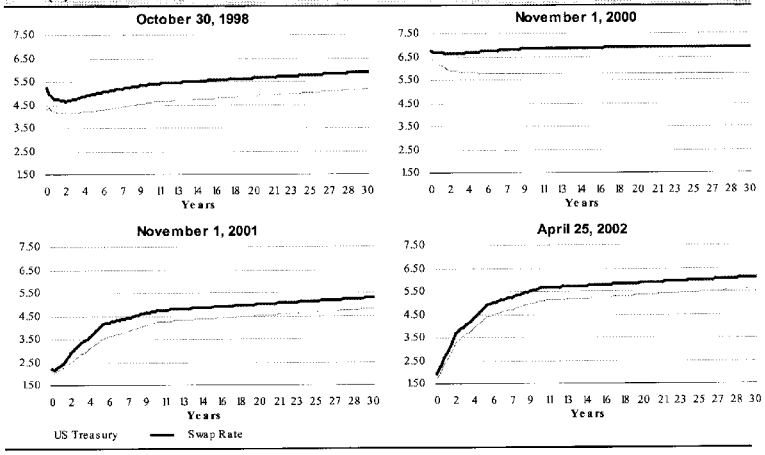
Source Bloomberg, BIS, Morgan Stanley estimates and Federal Reserve

Figure 3 shows the swap curve as compared to the treasury yield curve end of October and beginning of November for three recent years and as the appear currently. October 1998 is emblematic of the market post Russia and LTCM, 2000 sees an inverted treasury curve, and November 2001 is right after the US Treasury announced it would no longer issue new 30-year bonds. In general, the swap curve is "better behaved" than the treasury curve. Though the Treasury curve may be inverted as in 2000, the swap curve for rates

[8] Morgan Stanley estimate.

beyond 1-2 years is much less likely to invert as it captures some element of credit risk - risk that is almost always increasing in its tenor.

Figure 3: Historical Swap vs. US Treasury
Rate (%)



Source Bloomberg

The swap curve exhibits a dampening of the technical factors driving the Treasury market. Following Treasury's announced curtailment of 30-year auctions in 2001, the yield on 30-year treasuries dropped 41 basis points from 5.21% on October 30 to 4.80% on November 1. Rates for 30-year swaps dropped a slightly less dramatic 5.72% to 5.44%, a drop of 28 basis. Similarly as the swap curve is "continuously issuing" there are no discontinuities associated with auctions and on-the-run versus off-the-run bonds.

Given swaps effective position between Treasuries and corporate issues, we would expect swaps to exhibit strong correlation to both. Table 2 gives the correlation among swaps, treasuries, and the two AA indices examined. The table shows correlation in rate levels and their weekly changes. If we view the risk components as additive layers the correlation behavior is fairly intuitive. Treasuries represent pure interest rate risk – the dominant volatility component. Swaps add the volatility attributable to confidence in the financial system. The Bloomberg index adds the basis between a slightly inferior industrial credit and the financial system. Moody's Aa contributes offsetting volatility associated with the call optionality embedded in its component bonds. This is most apparent in the lower correlation the Moody's index shows in week-to-week rate movements as compared to the other three rate benchmarks.

Table 2		Correlation of Weekly Changes in Rates			
		Moody's Aa	Bloomberg AA Ind.	Swap Rate	Treasury Rate
Correlation of Rates	Moody's Aa		0.65	0.64	0.65
	Bloomberg AA Ind.	0.98		0.89	0.93
	Swap Rate	0.95	0.98		0.94
	Treasury	0.82	0.89	0.92	

Source: Bloomberg and Morgan Stanley

Swaps also have appeal as an international benchmark. Notional outstanding Euro-denominated interest rate swaps are in excess of $17.6 trillion.[9] Euro swaps are the de-facto benchmark for Euro-based assets. Unlike the dollar where there is a single sovereign issuer, the Euro currently has a dozen. Bunds, OAT's, and BTP's are all quoted on their spread *under* the Euro-libor swap curve as opposed to the United States where we think of swaps over treasuries. The size of the swap market is also considerable in other currencies as well. Yen denominated interest rate swaps total nearly $10 trillion on a notional basis. The aggregate amount for other currencies is more than $8 trillion with the British pound and the Canadian dollar principal among these. Swaps as an international pension rate benchmark would have the added benefit of increasing transparency and comparability for companies who have pension obligations in a variety of countries.

A frequent criticism of swaps as a benchmark revolves around the notion that they are not actual assets; that there is not a tangible bond that yields the swap rate. This argument ignores modern financial engineering. It would be a relatively straightforward task to create a trust structure that rolls commercial paper and short dated notes yielding LIBOR or a slight premium. Overlay a vanilla fixed-floating swap with the trust paying LIBOR and receiving fixed, and you have created a trust certificate that effectively yields the swap rate.

An additional argument for swaps can be made vis-a-vis consistency with later FASB rules. Statement 133, *Accounting for Derivative Instruments and Hedging Activities*, made allowance for only two benchmark interest rates – US Treasuries and LIBOR. If and when FASB re-visits pension accounting to make it more consistent with recent changes internationally, it would seem intuitive that they also make it consistent with more recent changes to GAAP.

Moody's Long Term Corporate Bond Yield Average is an index comprised of industrial and utility bonds of at least 20 years until maturity and an average maturity of 30 years. It is relatively familiar to the insurance and actuarial community as it is used as a component in determination of statutory reserves in California and other states and has a long history of publication.[10,11] The index equally weights the current yields to maturity

[9] BIS, "The global OTC derivatives market at end-June 2001".

[10] See Victor Modugno, "30-Year Treasury Rates and Defined Benefit Pension Plans," Society of Actuaries Research Project and Turpin and Gebhardtsbauer, "The Impact of Inordinately Low 30-Year Treasury Rates on Defined Benefit Plans," American Academy of Actuaries.

of 65 investment grade bonds and has an average credit quality of A3/A-. There is a sub-index with an average rating of Aa. Component bonds are reviewed frequently with replacement if a bond's remaining maturity drops below 20 years or it is deemed to trade at too great a discount, likely an indication of potential credit quality concerns, or too great a premium to par, which would generally indicate a rather illiquid issue.[12]

The end of year Moody's Aa index tracks the average FAS 87 discount rates closely. This is to be expected as most companies report on a calendar year basis and the 1993 SEC pronouncement solidified reliance on published benchmarks. As it is in currently used by many pension actuaries, some have proposed using this index less a fixed spread as a replacement to the current liability rate.[13]

One critical weakness of Moody's averages is that they include callable bonds with no adjustment for the call features. Twenty-six of the 65 bonds including 11 of 17 with credit ratings of Aa3 to Aa1 are callable with no make whole provisions.[14] This gives an upward bias to discount rates – a bias that increases as rates fall.[15] This is illustrated in Figure 4, which plots the spread over swaps for the Moody's Aa index versus levels of 30-year swap rates. At higher swap rates the Moody's index and swap rates are close differing by about 30 basis points when swap rates are 8%, illustrating a small difference in credit quality and liquidity. At lower rate levels the difference between the two rates widens significantly averaging 90 basis points when swap rates are at 6%. This bias throws into question the suitability of a majority of the bonds used in the Moody's index as proxy for liability valuation. It is unlikely that they would remain outstanding to benefit payment dates. Any discounting index based on the Moody's Aa index would share this bias.

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[11] The Moody's Bond Yield Average dates to January 1947 on a monthly basis and is available daily since the beginning of 1993. (Bloomberg)

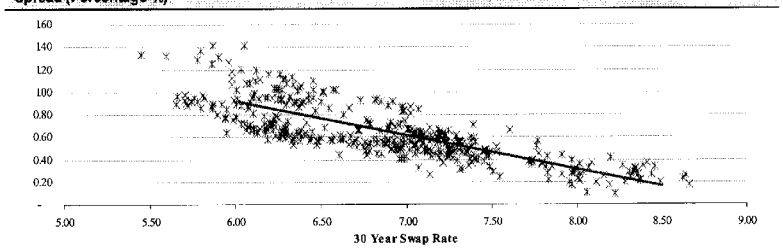
[12] Discussion with K. Rao, Moody's Investor Services.

[13] Turpin and Gebhardtsbauer, "The Impact of Inordinately Low 30-Year Treasury Rates on Defined Benefit Plans," American Academy of Actuaries.

[14] Based on information provided by Moody's Investor Services and Bloomberg.

[15] As rates fall, the probability of exercise of calls prior to maturity increases. The option sold by bondholders is more valuable. Amortization of this option is reflected as higher yield, or conversely, an effective ceiling on bond price, maturity, and duration.

Figure 4: Moody's Aa Bond Index less 30 Year Swap Rates vs. 30 Year Swap Rate



Source Bloomberg

An additional concern is the lack of transparency in the selection of component bonds and updates. While the index itself is readily observable through Bloomberg and other data sources, details on individual component bonds are available only on request to Moody's. This severely limits the ability of an asset manager to trade around the indices, which may be of concern for plans that engage in active asset-liability strategies. The Moody's indices also do not define full credit curves.

Bloomberg's AA Industrial Index is an example of an index that adjusts for the embedded option problem. Bloomberg calculates the option-adjusted spreads (OAS) of component bonds and then constructs a credit curve based on the adjusted yields.[16] As one would expect, this index rate is generally a bit less than historic FASB disclosure assumptions and the Moody's Aa index. The spread between the two widens in periods of low interest rates such as 1998 and the past few years.

There are a number of additional positives associated with the Bloomberg indices. First, a listing of component bonds is readily available lending transparency some of the primary drivers. Second, the indices are granular by rating and industry grouping: AA is solely AA and not AA-on-average or AA as a minimum; there are additional industry indices available at the AA levels (e.g.: utilities, financials, etc.). This gives a user the ability to custom-tailor an index. Third, the indices provide full credit curves. Curves are created by looking at bonds of all maturities within the category traded on the previous day that have been actively traded over a previous period of a few weeks. These bonds are then effectively stripped of their optionality and used to create a yield curve.

Unfortunately, in removing some of the problems that plague the Moody's indices, the Bloomberg indices substitute other problems. Calculating option adjusted spreads requires a model to adjust for the embedded options. OAS levels may differ quite a bit from model to model and require an estimate of implied interest rate volatility as an input. Using model-driven yields greatly reduces the transparency of the process. In

[16] See Bloomberg's CURV function.

addition, this also yields an index that is essentially untradable. Currently these indices are only available to Bloomberg subscribers.

Traded Custody Receipts are a recent development in credit markets that represent portfolios of individual bonds. Introduced under the trade name TRACERS by Morgan Stanley and TRAINS by Lehman Brothers, these are analogous in many respects to exchange traded equity index funds. These products are quite new and untested, however early activity in the market is promising. Unlike popular fixed income indices, these are tradable instruments. Outstanding amounts and trading volume have grown rapidly. Issuance has extended to multiple maturities, effectively creating a sparse yield curve with issuances at the 5, 10, and 30-year points.

Unfortunately, due to the relative lack of high quality, non-callable 30-year paper outstanding, average credit quality for the 30-year tracers is high BBB, slightly lower than for the 10 and 5-year issues. Table 3 illustrates the problem of constructing long-dated, tradable indices of high credit quality. Fifty billion of the 97 billion non-callable investment-grade corporate debt is BBB rated. Similarly, for callable debt with make-whole provisions, 92 billion of 138 billion is BBB. For AA or better credits, only 15 billion non-callable and 13 billion make-whole paper exists. This low investment grade credit rating makes these instruments unsuitable for our purposes, yet they bear watching as a future development in fixed income markets.

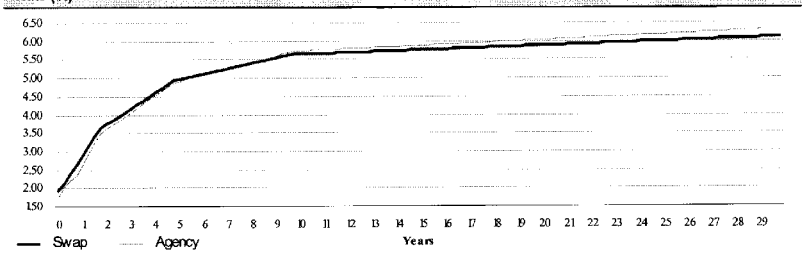
Table 3 ($MM)	Outstanding Debt 20 Years to Maturity or Longer		
	Non-Callable*	Other	Total
Investment Grade Corporates			
AAA	12,937	48,397	61,334
AA	15,805	11,939	27,744
A	64,511	39,716	104,227
BBB	142,017	53,210	195,227
Total	**235,270**	**153,262**	**388,532**
US Treasury	281,406	-	281,406
Agency	29,168	4,350	33,518

Source: Bloomberg
*Non-callable debt outstanding includes debt with make-whole features

Agency debt is often cited as a potential benchmark replacement for treasuries. Unlike treasuries, where outstanding issues are shrinking, agency debt is projected to grow substantially over the next decade. Agency issuance is directly tied to the market for housing. The past year saw record issuance mirroring mortgage origination. New home purchases require new mortgages, spurring agency debt issuance. Refinancing also requires new mortgages further spurring capital raising by the agencies. It is difficult to imagine scenarios other than those containing a serious economic depression or a major restructuring of the agencies' role in the mortgage markets that do not include growth in their debt issuance.

Both Fannie Mae and Freddie Mac have committed to issuance of non-callable debt along a full maturity horizon out to 30 years. Agency debt does have many attractive features. It is of the highest credit quality, liquid, and yield curves are readily available on Bloomberg and elsewhere. Figure 5 shows the Fannie Mae benchmark curve versus the swap curve. In general, agency yields are slightly richer on the short end and slightly wider on the long end - 19 basis points at 30 years in the figure here.

Figure 5: Swap vs. Agency Rates



Source Bloomberg

The observed connection between swap rates and agencies is easily explained. At the short end, the agencies benefit from their status as government sponsored entities (GSE's). The agencies have access to back-up funds from the Treasury. This implicit liquidity support merits preferential capital markets treatment on the short end. As the maturity horizon lengthens, the continued preferential status of the agencies is more uncertain. Without the implicit government backing, S&P and Moody's view the agencies on similar credit footing as LIBOR panel banks. As such, it is no surprise that the GSE's fund somewhere between the swap curve which has no issuer-specific risk, and panel banks at 30 years. Fannie and Freddie are also the largest single players in the swap market. As such, their behavior and positioning are important drivers affecting the swap curve. As time passes, the relationship between the agency curves and the swap curve should only become more intertwined.

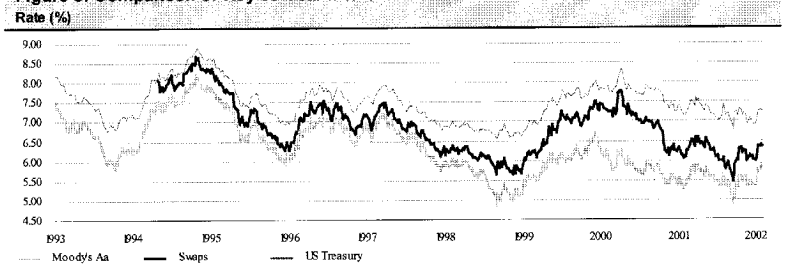
While both Fannie and Freddie have publicly committed to issuing 30-year paper, there are open questions as to the permanence of the issuance. Investors who once took the continued existence of a 30-year Treasury as a certainty may not feel as certain that any single issuer can credibly commit to an issuance plan in perpetuity. The amount of long dated paper issued is likely to be a very small fraction of agency issuance. Issuing 30-year bonds does not make intuitive sense from an asset-liability management perspective. The standard mortgage in the United States may have a stated maturity of 30 years, but very few actually remain outstanding that long. Additionally, mortgages are amortizing assets. Combining these factors gives assets with actual effective maturities and durations on the order of one-third of that for 30-year bonds. Issuance of 30-year bonds is probably best seen as an effort to broaden the agencies' investor base. Issuance of 30-year bonds will likely be high when rates are low by historic standards, and tail off considerably as rates rise up to and through longer-term averages.

The ongoing saga of Fannie and Freddie's continued status as government supported entities and their individual circumstance in the coming years is another cause for caution. If the two lose their favored status, long spreads will likely widen to look more like their purely private sector brethren. In this case, idiosyncratic risk looms as an even larger burden.

Summing Up

Figure 6 shows the 30-year swap rate as compared to Moody's Aa, and the 30-year treasury rate. The rates track reasonably well until 1998. After the Russian/LTCM crisis, the combination of fewer treasuries and their distinctness as a riskfree asset induced a separation of trading behavior from the credit sensitive rates. The Moody's Aa rate tracks movements in swaps relatively closely except in low interest rate environments such as 1998 and the past year.

Figure 6: Comparison of Key 30-Year Interest Rates



Source Bloomberg

Looking back to the criteria laid out to evaluate a universal pension discounting benchmark, swap rates emerge as the clear best choice. Only agency debt comes close. Other candidates suffer from a variety of shortcomings: optionality, lack of transparency, uncertainty as to their permanence in the market place, non-existence of yield curves, and a lack of trading markets.

Swaps represent a balanced tradeoff between the FASB-inspired Aa indices and current liability rates. The Aa indices suffer from a variety of faults highlighted above and generate liability values that understate the true cost of liability defeasance. The non-market treasury-based current liability rate overstates the cost of defeasance more often than not. But if benefit cashflows are valued at somewhere between 90% and 120% of current liability, the resulting number may bear no relationship whatsoever with where plan liabilities could reasonably be settled. Not too high, not too low, swap rates look just right.

Appendix 3

Key Issues in the Design of Pension Legislation

Key Issues in the Design of Pension Legislation

Michael W. Peskin

La Revue De L'AFPEN
November 1996

There is a world-wide debate about the best system to provide pensions to retirees after their productive working life ends. Should retirement income be provided through defined benefit plans or through defined contribution plans? Should defined benefit plans be funded (like corporate pension plans in the USA) or unfunded (like Social Security throughout the world)? If plans are funded, what should the funding rules be? What constraints should there be on investment policy? What should taxation policy be with regard to such plans? How should funded plans invest the Trust assets?

This article discusses the key reasons why plans should be funded, why defined benefits are preferable to defined contributions and the design of funding and tax regulations. The discussion has been restricted to the provision of pensions through employers (i.e. corporate pension plans) to keep this article to a manageable size.

I. Funding Versus Book Reserving

A) National Economic Perspective

A pension plan is a promise by one party (the plan sponsor) to pay another party (plan participants) deferred wages in respect of current service. Unless this promise is backed by assets or insured, it is unsecured and subject to the sponsor's credit risk.

If the plan is funded (the debt is backed by assets), then the pension promise becomes a collateralized bond, and the security of the promise is established by the amount of collateral. There may also be an insurance system in addition to the collateral requirements.

If the plan is book reserved there is no security unless there is also a mandatory insurance system. If the insurance premiums were based only on the specific risk of each plan sponsor and if capital markets were efficient, then the economic cost of the two systems would be identical. It is, however, virtually impossible to price the insurance correctly. The sponsor controls too many variables that can adversely impact the insurer. For instance, a company in difficulty can decrease current wages and increase deferred wages. This transfers a portion of the cost of labor to the insurance system to the general detriment of the economy. The high cost (or potential for high cost) of the insurance system may also make entry into the system prohibitively expensive for start up companies.

The ability to "game" any insurance system makes the book reserving system less economically efficient than funding, provided the funding and accompanying investment and tax regulations are appropriately designed to avoid "gaming".

B) Corporate Perspective

1. Book Reserving Plus Insurance

In a book reserved system, the liabilities are part of the corporation's balance sheet. The financial T-account below illustrates the financial impact of a book reserved system in combination with an insurance system.

Assets	Liabilities
Corporate Assets	**Corporate Liabilities**
Value of Pension Put to Insurance System	**Pension Liabilities (benefit payments)**
	Insurance Liabilities (premium payments)

Pension Liabilities are the present value of future benefit payments measured at the cost of borrowing of the corporation (i.e. they are subject to the corporation's credit risk). The Insurance Liabilities are the present value of the future insurance premiums. The Value of the Pension Put to the Insurance System represents the pension liabilities that the insurance system will pay in the event of bankruptcy. This is worth more to a nearly bankrupt firm than to a healthy firm. Companies can continue increasing their pension liabilities even when they can no longer borrow at any cost. The insurer, however, must ultimately pay for its increased risk by increasing the premiums for all sponsors.
Therefore, a book reserving system will appeal to weaker companies where the value of the pension put is likely to exceed the value of the insurance cost, and will hurt stronger companies that will ultimately have to pay for the increased pensions of weak companies that went bankrupt.

2. Funded Plans (Without Insurance)

Instead of book reserving, the sponsor can fund a trust that is separate from the corporation. If the assets in the trust are never less than the liabilities accrued to date, then the participants will receive their accrued benefits even if the sponsoring corporation becomes insolvent. Providing the required degree of security requires careful crafting of funding and investment regulations.
When plans are funded, the financial T-account of a corporation is as follows:

The Present Value of Future Contributions is the cost to the company of the contributions it must pay to keep the plan funded. If the plan becomes overfunded, then the corporation owns

Assets	Liabilities
Corporate Assets	**Corporate Liabilities**
Call on Pension Surplus	**Present Value of Future Contributions**

a call on the revertible surplus in the plan.
The pension trust is a separate entity and its financial T-account is as follows:

The pension assets collateralize the accrued pension liabilities. Collateralizing pension benefit

Assets	Liabilities
Pension Assets	**Accrued Pension Liabilities**
Present Value of Future Contributions	**Present Value of Future Pension Accruals**
	Company's Call on Surplus

promises with real assets will be less appealing to weaker companies than a book reserving system.

C) Participant Perspective

1. Book reserving plus insurance

Participants' accrued benefits are secured through the insurance system. Employees at weak companies will continue to get benefit accruals that are fully secured.
The participants' financial T-account looks as follows:

Assets	Liabilities
Accrued Benefits (subject to sponsor risk)	**Future Work to Earn Future Accruals**
Insurance Guarantee of Guaranteed Accrued Benefits	
Future Accruals (subject to sponsor risk)	

2. Funded Plans

Participants have security of accrued benefits through the trust collateral. Weaker companies will stop benefit accrual when they cannot afford to set aside the assets to collateralize them. The financial T-account in respect of participants would be as follows:

Assets	Liabilities
Funded Accrued Benefits (secured by trust assets) **Unfunded Accrued Benefits (subject to sponsor risk)** **Future Accruals (subject to sponsor risk)**	**Future Work to Earn Future Accruals**

II. Funding, Investment and Accounting

The key objective of funding is to collateralize (secure) the deferred wages promised as they accrue. If the assets are always equal or in excess of the accrued liability measured at market rates of interest, then the accrued liability will be secured.

Benefits (deferred wages) consist of three distinct pieces:

1. The accrued benefit, which is the benefit earned by wages and service to date. (Accrued benefits are fixed and do not include future wage increases or cost of living increases).
2. Future accruals due to future service and future wages (including the increase in deferred wages for prior service due to future salary increases).
3. Cost of living increases after retirement.

From a security perspective, it is only necessary to collateralize the accrued benefits. Future accruals will be secured by collateralization when the future service is performed. Furthermore, for the reasons set out below, it is inappropriate to guarantee protection of participants from inflation through the pension system.

Increases in the Consumer Price Index (C.P.I.) occur for two basic reasons:

1. Money supply increases faster than the economy (the supply of goods).
2. Real increases in the price of goods (such as the oil price hike in 1973).

If society wishes to control the first then the appropriate way is to control money supply. It is inappropriate to have one sector of the economy (plan sponsors and their stakeholders including customers) pay the price of inflation caused by a different sector of the economy. The second is a real economic event that cannot be controlled and has an indisputable cost to all consumers. It is undesirable to protect one sector of the economy (retirees) from its impact by forcing another sector to bear not only its share of the cost but also the cost of subsidizing the other sector.

Two areas of legislation can help ensure the desirable level of collateralization. The first is an annual minimum contribution requirement. The second is to require that assets bear some reasonable match to liabilities, which will protect participants from investment risk.

A) Contribution Requirements

The simplest rule would provide for a minimum contribution at the start of each year equal to the difference in accrued liability at the start of the year and the present value of the expected accrued liability at the end of the year (i.e. after the additional year of service and pay increase).

The accrued liability would be calculated using nominal market interest rates without allowance for future salary increases. If there were no investment risk (if assets matched liabilities) then this contribution would ensure full collateralization of the accrued benefits. For a mature group, the contributions would tend to remain a constant percentage of pay. However, many companies, especially newer companies, would experience rising contribution levels as a percentage of pay.

In some circumstances, it may be desirable to allow for a "secured benefit" that is less than the full accrued benefit. For example, for a new plan with past service benefits, it may be too costly to collateralize the full accrued benefits in the first year. In this situation, the secured benefit should phase into the accrued benefit over some reasonable amortization period.

Companies should be allowed to fund faster than the minimum requirements in order to stabilize costs as a percentage of pay and to allow more flexibility in future funding and investment policy (which is discussed in the next section). Thus tax deductible contributions should be allowed on the basis of actuarial cost methods that fund all of the plan's liabilities, until the plan is fully funded on a projected pay basis (i.e. until the plans assets are equal or exceed the accrued liability with allowance for future salary increases).

B) Investment Regulations

Weak sponsors can gamble against participants and creditors by taking excessive risk with their investments. This can be avoided if the trust assets are required to be invested so as to move somewhat in tandem with the accrued liabilities. This prevents the accrued liabilities from becoming severely under-collateralized. As the collateral grows relative to the accrued liabilities, the investment restriction can be reduced in recognition of the "surplus" collateral.

If assets were exactly equal to the accrued liabilities, then they must match the liabilities to ensure that they remained adequate until the next measurement period. This means 100% liability matching bonds. (Note that this will be possible only if a large supply of long maturity government bonds is available).

If the assets exceeded the accrued liabilities then non-matching risky assets can be added to the portfolio without increasing the risk that the assets will be less than the accrued liabilities.

A rough rule of thumb could allow equity exposure to be no greater than twice the surplus percentage (i.e. assume that the most the risky asset could lose in any year is 50%).

Examples:

If there is no surplus, then investment policy is 100% liability matching bonds.

If collateral (assets) is 130% of secured liabilities, then the maximum equity percentage is 60%.

This restriction is less onerous than it may appear. Companies that are funding future pay increases tend to build up assets well in excess of the minimum requirement. As a result, they will be able to invest in a higher level of equities appropriate for these longer, wage-related liabilities.

Accounting Considerations

The accounting objective is to appropriately assign a cost to the period in which it is incurred and to recognize a net asset or net liability on the corporate balance sheet in a fair and consistent manner. The only way to ensure both of these accounting objectives, under the funding and investment system described above, is to account for both assets and liabilities on a market value basis. The "market value" of liabilities is the liabilities discounted at market rates of interest. Note that under this system the cost assigned to a particular year is based on the accrual of benefits for that year based on current pay without allowance for future pay increases. The cost in respect of pay increases is incurred and recognized in the year in which they occur. Any other accounting system e.g. "book" values, artificial discount rates, averaging of assets etc. will be "gameable" or will not reflect reality.

The actuarial methodology for calculating contributions in excess of the minimum required contribution may use any measure of assets and liabilities that is considered appropriate by the actuaries and the corporations. If such contributions are tax deductible and the earnings theron are not subject to tax then it is reasonable for Society to impose a maximum limit on such contributions or to limit corporate access to the surplus build up to avoid tax evasion.

III) Tax Considerations

National governments want workers to provide for their own retirements and not be a burden to the nation's welfare system. This cannot be left entirely to the private sector because too many individuals overly prefer current income to deferred income. There are two ways the government can encourage deferred income. The first is to mandate that some portion of wages be deferred to provide retirement income. The second is to encourage employers, employees or both to defer wages through tax incentives.

The regulations can provide for both a mandated wage deferral and an additional voluntary wage deferral. The mandated piece would be for a minimum benefit level which would ensure that retiress do not require welfare. This need not be tax deductible or enjoy any tax-free build up. The additional voluntary piece (which would

allow retirees to continue to enjoy their preretirement lifestyle) would be encouraged through tax incentives, including a tax-free build up in the trust.
However, this approach would make lower paid employees' pensions relatively more expensive, which may lead corporations to hire less, causing higher unemployment. This may justify allowing the entire pension a tax-free build up.

IV) Defined Benefit Versus Defined Contribution

A defined benefit plan provides a predetermined level of benefits at retirement the cost of which is unknown and largely dependent on investment returns. A defined contribution plan provides an unknown benefit at retirement (dependent on investment returns) for a predetermined cost. There is a world wide trend to switch from defined benefit plans to defined contribution plans.
A key point which is almost always missed, is that from a national perspective, any system must translate into a defined benefit system. This is the only system that can ensure that people remain off of welfare. If a cohort of people retire under a defined contribution system with inadequate income or use up their defined contributions savings prior to retirement (a common occurance in the United States) then society or the corporation is going to have to subsidize these retirees. This "insurance" which always becomes payable in particularly trying times (when the capital markets tank) turns defined contribution plans into a particularly expensive form of defined benefit plans.
The key perceived problems with defined benefit plans are:

- The assets are insufficient to meet the benefit promise (particularly at the national level) causing costs to skyrocket.
- When the employee changes jobs the vested accrued benefits erode through inflation.

The key advantages perceived in defined contribution plans, are:

- A direct individual correspondence between assets and liabilities.
- Portability
- Employee control of the investments.
- Employee bears the investment risk.

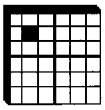
Both of the perceived disadvantages of defined benefit plans are cured to a very large extent by appropriate legislation as discussed above. The funding and investment rules control costs and security, and government control of inflation through its control of the money supply reduces the portability problem. Once this is accomplished, defined benefit plans have real advantages over defined contribution plans:

- The benefit levels can be set to provide desired living standards with little or no risk of a cohort of retirees needing public assistance. With defined contribution plans, it is highly probable that a large cohort of retirees will at some point retire with inadequate incomes and need public support. This will usually happen when the capital markets have performed miserably and the national budget is under extreme pressure.
- Generally, defined benefit plan sponsors have much longer time horizons than individuals and are thus willing to take more risk (provide more risk capital). Over long periods, risk capital tends to produce higher returns, which lowers the cost of the deferred income. Also, increased risk capital helps the economy. Defined benefit plans are thus cheaper to the economy than defined contribution plans.

The perceived advantage of defined contribution plans that employees bear the investment risk is a myth as discussed earlier. Furthermore, there is a distinct danger in defined contribution plans that employees will spend the assets in the hope or belief that society will subsidize them thereafter. This means that, in general, a defined benefit approach is likely to prove much effective and less costly in achieving the goals of society.

STATEMENT OF RYAN LABS INC.

[SUBMITTED BY RONALD J. RYAN, PRESIDENT]



RYAN LABS INC.

THE SCIENCE OF FINANCE

Memo

To : Senate Finance Committee
From : Ronald J. Ryan
Date : March 11, 2003
Re : Discount Rate on Pension Liabilities

The pricing of pension liabilities is a Tower of Babel so loosely translated that the economic valuation of defined benefit pension liabilities is not directly available to the financial and regulatory communities. This leads to confusion as to economic funding ratios which may result in low or no contributions being made and even increased benefits at a time the plan can not afford extra net liabilities. The confusion stems mainly from conflicts arising from two pricing mandates : the FASB and the IRS.

FASB

FASB governs the content of financial statements. FAS 87 was written for Pensions and FAS 106 for Post-Retirement Medical Benefits. FAS 87 tells us *(and I quote):*

"Interest rates vary depending on the duration; for example, one year T-Bill, 7-year bonds, and 30-year bonds have different interest rates... The disclosures required ... will be more representationally faithful if individual discount rates are selected (*para. 199)* "... that are "high-quality fixed income investments to maturity of the pension benefits (*para.44*)".

The SEC observed significant deviations in the discount rates used and in June 1993 sent a letter to all corporations stating:

" . . . that the guidance provided in paragraph 186 of FASB 106 for selecting discount rates to measure the post-retirement benefit obligation also is appropriate guidance for measuring the pension benefit obligation".

FAS 106 paragraph 106 states:

"The objective of selecting assumed discount rates is to measure the single amount that, if invested at the measurement date in a portfolio of high-quality debt instruments, would provide the necessary future cash flows to pay the accumulated benefits when due. Notionally, that single amount would equal the current market value of a portfolio of high-quality zero coupon bonds whose maturity dates and amounts would be the same as the timing and amount of the expected future benefit payments."

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Accordingly, only high-quality zero-coupon bonds seem to qualify under FAS 87 and 106. Given the bond market today, the only available issuer of zero-coupon bonds across a wide maturity spectrum (i.e. yield curve) are stripped U.S. Treasuries ("STRIPS"). Agency zeroes do exist but not in any meaningful size or regularity of issue to fund an entire yield curve although in time this may be possible. Currently, you would need a portfolio of Agency issuers to fund all maturities.

However, the FAS appears to allow interpretation to permit the use of highly rated life annuities and high-quality coupon bonds to also serve as the pricing mechanism for liabilities. Annuities are a negotiated market with no true market quote. Moreover, they are very limited in size. The largest annuity funding of pension liabilities equaled $800 million. High-quality coupon bonds would still have to cover a sufficient span of maturities to constitute a relevant yield curve. Such corporate bonds are not available. Most pension plans use the Moody's AA long Corporate bond index. This index only includes bonds longer than 20-years and should be in violation of FAS directives. Moreover, this index does not include Finance issues, which now comprise close to 50% of the corporate bond market. What is thereby produced is a single discount rate used to price all liabilities no matter what maturity or payment date the liability has. Such a flat yield curve is not indicative of the market and cannot be purchased.

In 1991, Ryan Labs developed the first Liability Index in America (trademarked in 1992). This index is in conformity to FAS 87 and 106 and uses Treasury zero-coupon bonds to discount defined benefit pension liabilities. Based upon the generic Ryan Labs Liability Index, with an average duration of 15.5 years), pension liabilities grew by over 48% during the last three calendar years. Ryan Labs creates a monthly Asset/Liability Watch newsletter that has estimated that pension assets under performed pension liabilities by 67.8% in the three calendar years 2000 thru 2002. **IRS**

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The IRS governs the minimum contribution corporations must pay to achieve a proper funding status. Under RPA 1994, the IRS uses a weighted average of the 30-year Treasury at the end of each calendar year as follows:

40% of this years yield
30% of 1 year ago
20% of 2 years ago
10% of 3 years ago

Such a formula could never produce a liability measure with which to judge current economic funding status. To understand the significance of an erroneous pricing yield, multiply the yield error times the duration of pension liabilities. For example, a 100 basis points deviation from the current rate times a duration of 10 years = a 10% error in the valuation level of liabilities. As of 12/31/02, the IRS calculation deviated from the current yield of the 30-year Treasury by 51 basis points too high a

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rate times duration of 10 to 15 equals a pricing error of 5.1% to 7.7%. Since too high a discount rate is used, liabilities are priced too low causing funding ratios to appear better than they are.

Recommendation

Ryan Labs recommends some practical guidelines as the solution to our pension pricing dilemma :

1. **The discount rate used must be purchasable (real quoted market)**
2. **Discount rate must be a yield curve of zero-coupon bonds (or an annuity rate that is quoted for you're the individual pension plan)**

These accurate and executable guidelines allow for Treasury and Agency zero-coupon bonds plus annuities. Corporate bonds are not " high-quality for life" nor do corporate zero-coupon bonds exist across the relevant maturities.

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RYAN LABS, INC.
The Science of Finance
RYAN RESEARCH

The Pension Crisis Revealed

Ronald J. Ryan, CFA
President
Ryan Labs

Frank J. Fabozzi, Ph.D., CFA
Adjunct Professor of Finance
School of Management
Yale University
and
Editor, *The Journal of Portfolio Management*

America is facing a pension crisis that threatens the solvency of our corporations, cities, states, and even the federal government. Much of it appears to be the result of poor equity performance in the calendar years 2000 to 2002 for defined benefit pension plans. In this article, we argue that the true cause of this crisis lies within the actuarial practices and accounting rules that apply to defined benefit pension plans.

ASSET ALLOCATION

Let's look at the asset/liability growth differences since Financial Accounting Statement (FAS) 87 was first mandated for corporations after December 15, 1986. We will begin the analysis in 1990 and we will assume a typical defined benefit pension plan is fully funded (i.e., assets are equal to liabilities) at that time.

Consider first the typical asset mix. *Pension & Investment* surveys the 200 top defined benefit plans and reports their asset allocation. The asset classes included in the survey by

Pension & Investments for the years covered in this article (1990-2002) are shown in Table 1. We used the annual survey results for our allocation. Table 1 shows the allocations used for each year from 1990 through 2002.

Table 1: Typical Asset Mix*

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Cash	0.08	0.05	0.04	0.04	0.04	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02
Bonds	0.40	0.39	0.40	0.38	0.36	0.35	0.34	0.31	0.31	0.27	0.27	0.30	0.31
Equity	0.44	0.49	0.49	0.52	0.55	0.58	0.58	0.61	0.46	0.48	0.48	0.44	0.41
Real estate	0.05	0.04	0.04	0.03	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.04	0.05
Intern'l stocks	0.00	0.00	0.00	0.00	0.00	0.00	0. 00	0.00	0.12	0.14	0.14	0.14	0.14
Intern'l bonds	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02	0.01	0.02
Mortgages	0.02	0.01	0.01	0.01	0.01	0.01	0. 01	0.01	0.01	0.01	0.01	0.01	0.01
GICs+Annuities	0.02	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private Equity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.03	0.04	0.04	0.04
Total	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

*** Based on annual survey of *Pension & Investments*.**

The return for each asset class for each year are shown in Table 2. The benchmark used for each asset class is identified at the bottom of the table. The first row of Table 3 shows the computed return (which we refer to as the asset return) on the portfolio using the weights in Table 1.

Table 2: Asset Class Returns

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Cash	8.73	7.42	4.12	3.51	3.94	7.11	5.59	5.72	5.48	4.24	6.47	4.84	1.75
Bonds	8.96	16.00	7.40	9.75	-2.92	18.47	3.63	9.65	8.69	-0.82	11.63	8.44	10.25
Equity	-3.15	30.45	7.64	10.07	1.29	37.57	22.93	33.34	28.55	21.03	-9.09	-11.86	-22.08
Real Estate	1.30	-4.40	-2.60	0.50	3.70	7.80	8.60	10.90	12.00	13.10	15.00	4.10	3.10
Intern'l stocks	-23.32	12.48	-11.85	32.95	8.06	11.56	6.37	2.08	20.24	27.32	-13.87	-21.11	- 15.64
Intern'l bonds	12.70	15.35	4.50	12.31	1.56	20.18	5.12	1.04	15.33	-5.24	1.43	-1.37	19.59
Mortgages+Annuities	10.72	15.72	6.96	6.84	-1.61	16.80	5.35	9.49	6.96	1.86	11.16	8.22	8.75
GICs+Annuities	9.12	8.91	8.70	8.15	7.52	7.19	6.73	6.58	6.57	6.57	6.56	6.61	6.33
Private Equity								24.10	19.80	11.70	79.40	-3.40	20.00*

Asset Class	Years in P&I Survey	Index
Cash	**All years**	**Ryan Labs Cash Index**
All Equities (U.S. & International)	**1990-2001**	**S&P 500**
U.S. Equities Only	**1998-2001**	**S&P 500**
International Equities	**1998-2001**	**Morgan Stanley EAFE Index**
All Bonds (U.S. & International)	**1990-2001**	**Lehman U.S. Aggregate Bond Index**
U.S. Bond Only	**1998-2001**	**Lehman U.S. Aggregate Bond Index**
International Bonds	**1998-2001**	**Lehman Global Bond Index**
Real Estate	**All years**	**PPR Private Equity Index***
Mortgages	**All years**	**Lehman Mortgage Index**
Private Equity	**1997-2001**	**Financial *Venture Economics***
GICs and Annuities	**1990-1994**	**Ryan 5-Year GIC Master Index**

*** return not available for full year. Used 20% as an estimate based on 1998.**

To determine the impact on our typical corporate defined benefit plan, we must assume (1) a typical liability structure and (2) discount that liability at an appropriate interest rate or interest rates. As a proxy for the liabilities, we use a generic liability index developed and trademarked by Ryan Labs. The liability index has a 15.5 average duration. This index is based on FAS 87 and market interest rate trends. FAS 87 requires the use of a high-quality zerocoupon yield curve (or an extrapolated coupon yield curve with reinvestment at current levels) to discount liabilities. The Ryan Labs Liability index uses the Treasury STRIP curve since it is the only continuous high-quality yield curve of the same issuer. Without a specific plan sponsor's

liabilities, the Ryan Labs Liability index uses an equal-weighted STRIP curve. Based on industry trends, an average 15.5 duration should be close to the median or average duration of the pension industry.

Using U.S. Treasury zero-coupon securities to value the liabilities, a "liability return" can be computed for each year. This return is computed as follows:

$$\text{Liability return} = \frac{\text{Present value of the liabilities for year } t}{\text{Present value of the liabilities for year } t\text{-}1} - 1$$

The liability return for each year is shown in the second row of Table 3.

Table 3: Portfolio Return and Liability Return

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Portfolio return	3.23	21.78	6.98	9.31	-0.02	28.70	15.13	24.24	19.69	14.44	0.61	-5.30	-6.55
Liability return	3.23	19.26	7.87	22.46	-12.60	41.16	-3.70	19.63	16.23	-12.77	25.68	3.08	19.47
Net return	0.00	2.52	-0.89	-13.15	12.58	-12.46	18.83	4.61	3.46	27.21	-25.07	-8.38	-26.02

Geometric mean return 1990-2002:
Portfolio: 9.62% (asset return)
Liability: 10.42%

Given the portfolio return and the liability return, the net return is computed. The net return is shown in the last row of Table 3. Because we assumed that the initial defined benefit pension plan was fully funded, the net return shows the growth rate of the pension surplus from 1990 to 2002. Figure 1 shows the funding ratio for each year from 1989 (assumed to be 100% on December 31, 1989) through 2002.

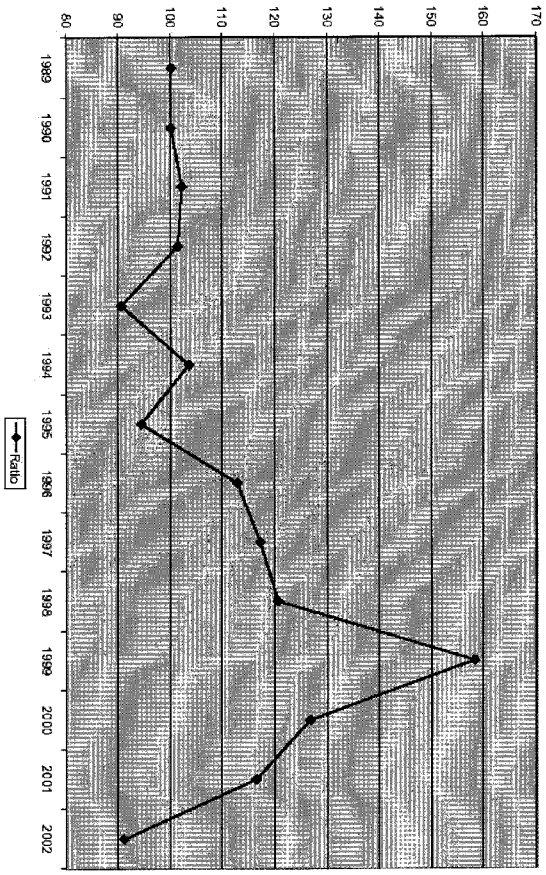

Figure 1: Funding Ratio

From Table 3 and Figure 1, the following observations are noteworthy:

- Asset growth is volatile. Keep this in mind when we discuss the ROA assumption in the next section.
- Liability growth is volatile. This volatility is due to the use of market discount rates that change each year. Despite the fact that using Treasury STRIPS rates is a proper way to value liabilities (conforms to FAS 87 and FAS 106), one can see why pension plans who seek to avoid volatility would prefer to use a higher and more constant discount rate.
- The geometric annual growth of the assets and liabilities from 1990 to 2002 is 9.62%% and 10.42%, respectively. That is, liability growth exceeded asset growth.
- 1994 was the third best year for the surplus (net return of 12.58%) but the asset return was close to zero.
- 1995 was the best year for the asset return (28.70%) but a bad year for the surplus (-12.45% net return).
- 2002 was the worst year for the surplus (net return of -26.02%).
- The funding ratio for the entire period declined from 100% to 91%.

The consistent skewness to an equity-heavy asset allocation bias as shown in Table 2 has crippled most defined benefit pension plans in 2000, 2001, and 2002. Higher contributions, earnings drags, higher variable PBGC premiums, lower credit ratings are all visible consequences of this severe under performance. As is demonstrated, there is no proof that equities outperform bonds (i.e. long Treasury STRIPS that match the duration of liabilities) over this 13-year period. What is not obvious is that the equity bias is based more on GAAP than any belief that equities are a core asset class (see Bodie, Gold, and Kra [2001]).

RETURN ON ASSET ASSUMPTION

The *return on asset assumption* (ROA) is an actuarial/accounting assumption that forecasts the long-term growth rate of each asset class weighted to form a total asset growth rate estimate. Is it hard to believe that pension plans allow for a *forecast* of the returns of each asset class to be the primary driver of the pension asset allocation process. Who could possibly forecast with any accuracy the annual return of any asset class one year in advance? Advocates of the use of the ROA assumption assert that is a long-term growth rate for fund assets. What is even more difficult to accept is how could these growth rates be so stable and *always* exhibit a positive return? That is certainly not the historical return behavior of any of these asset classes as can be seen in Table 1.

Here is how the ROA affects the entire pension game. For corporations, the ROA is the major offset to the pension cost affecting earnings. As a result, the higher the ROA the lower pension costs and the higher earnings all else being stable. Accordingly, a policy pursued by most corporate pension plans is not to alter or reduce the ROA if they can.

Well, now comes the auditor who must qualify these assumptions. The firm's accountants work with the plan's actuary who uses some unclear historical return behavior to justify each asset class return assumption. For bonds, the actuary uses a forecasted return equal only to the prevailing market yields. As such, a bull market in bonds (i.e., a decline in market yields) would lower the expected return of bonds each year at a time when bonds are producing their best growth for the assets. This is inconsistent with bonds historical return behavior.

1 A Credit Suisse First Boston [2002, p. 12] study found an average ROA assumption of 9.20%; an average ROA of 9.25% was found in a Bear Stearns by McConnell, Pegg, and Zion [2001, p.16] study.

The current ROA assumptions for the 380 defined benefit plans in the S&P 500 have been steady at around 9% for the last three years.[1] A level estimate of growth was the mandate. Corporations don't like volatility on their financials. As a result, pensions go through several accounting techniques to reduce any volatility on earnings and eliminate pension contributions. Comparing the standard ROA forecast of 9% to reality shows the enormous tracking error (i.e., difference between the 9% ROA and the actual asset return from Table 3)[2] of such a methodology:

Year	2000	2001	2002
Assumed ROA	9.00%	9.00%	9.00%
Actual ROA	0.61%	-5.30%	-6.55%
Tracking error	8.39%	14.30%	15.55%
Cumulative		22.69%	38.24%

On a conservative basis, the average tracking error was about 12.75% over the last three calendar years in this study. To prevent such volatility from hitting the financial statements, this error is merged into the Actuarial Gains and Losses on liabilities and is amortized over the life of the pension fund (at 15 years). Pension funds are now being burdened with this loss amortization that will remain on their books for the next 15 years. Moreover, if assets recover and produce returns well above the ROA, they too are amortized over 15 years. Given the magnitude of the Actuarial Gain/Loss over the last three calendar years, it is clear that the current pension crisis cannot be resolved (nor even fully revealed) quickly.

As can be seen from Table 3, it is true that the period 1995 to 1999 produced large Actuarial Gains over the ROA and is still in the amortization process. Many corporations

2 Tracking error as defined here is simply the difference between two returns. Tracking error in performance measurement is defined differently. It is the standard deviation of the deviation of the portfolio return from the benchmark.

reported significant earnings growth from pensions due to this extra growth. However, this trend has now reversed and pensions are now experiencing an "earnings drag." The difference here is on the order of a 25% earnings drag according to recent S&P estimates for the S&P 500. Until assets and liabilities are marked-to-market, pension plans will never know the true economic relative growth of their plans.

DISCOUNT RATE

Similar to the ROA methodology, accountants and actuaries price liabilities at a forecasted growth rate or interest rate. Some say it is a long-term growth rate assumption. For corporations, they tend to use the highest yield they can find that is a quoted rate. Typically, this is the Moody's AA Corporate yield.[3] This yield belongs in a financial museum not to determine values for GAAP purposes.

The Moody's AA Corporate index was designed in 1929 and only consists of long maturity Industrials and Utilities. There are numerous problems with this index. First, there is no yield curve and, as a result, cannot value liabilities accurately. Second, the index does not have zero-coupon bonds in its composition. This is inconsistent or less appropriate under FAS 106 paragraph 186 for pricing liabilities. FAS 106 does permit the use of coupon bonds but requires that reinvestment rates be assumed, making the implementation more complex. Third, the index is not representative of the corporate bond market because it does not include the finance sector which dominates the corporate bond market values. Fourth, the yield quoted is an average for the month and not a month end rate. Fifth, the index is equally weighted for nine

[3] This is virtually mandated by the SEC (see Schuetze [1993]).

Industrial issues to form an Industrial average, and then equally weighted on seven Utility issues to form a Utility average. Moody's then equally weights the Industrial average yield and the Utility average yield to form a AA Corporate average yield, giving Utilities the same weight as Industrials with fewer issues.

The SEC in a 1993 letter to FASB, suggested that the guidance provided in paragraph 186 of FAS 106 is an appropriate guideline for discounting pension liabilities. This paragraph states

> "...the objective of selecting assumed discount rates is to measure the single amount that, if invested at the measurement date in a portfolio of high-quality debt instruments, would provide the necessary future cash flows to pay the accumulated benefits when due. Notionally, that single amount ... would equal the current market value of a portfolio of high-quality zero coupon bonds whose maturity dates and amounts would be the same as the timing and amount of the expected future benefit payments."

The SEC is clear that zero-coupon bonds are the proper, if not preferred, discount rate methodology. However, the SEC qualified high-quality to include AA and AAA Corporates. Since zero-coupon Corporates do not exist, and since the longest duration on Corporate coupon bonds is around 15, the SEC permits an extrapolated yield curve provided it is based on current interest rate levels.

To provide assistance in pricing here, Ryan Labs created a corporate bond yield curve series which includes all corporate bonds $150 million and greater in size by rating group. As of December 2002, the Ryan Labs AA Corporate yield curve ranged from 2.12% (2-year) to 6.10% (30-year). Using 6.10% as the yield for durations beyond 15 (flat tail) and weighting this yield curve by the liability schedule, most pension plans would have a weighted AA Corporate

discount rate below 5.50%. This is well below the Moody's AA Corporate yield of 6.52% and most average discount rates surveyed.

Based on studies by two top pension consultant firms, here are their calculations of the average or most widely used discount rates by pensions:

	2001	2002
Mercer	**7.25%**	**6.75%**
Watson Wyatt	**7.21%**	**6.77%**
Moody's AA Corp	**7.08%**	**6.52%**
Ryan Labs AA Corp (30 yr)	**6.78%**	**6.10%**
Treasury 30 year	**5.47%**	**4.79%**

Because the plan liabilities are bond-like, their true growth rate is no more stable than is a long bond portfolio. Year-to-year liability fluctuations can easily amount to double digit growth rates. But most of these fluctuations do not get reported in the current year's pension expenses. Only the amount attributable to the discount rate (e.g., 7% on last year's liabilities) is recognized. The growth in liabilities attributable to changes in the level of interest rates and the shape of the yield curve is hidden in an amortization account (identified as "Actuarial Gains and Losses") where it is amortized versus earnings over many years (average life of the plan).

Naturally, the higher the discount rate used to discount liabilities, the lower the present value of the liabilities. But using an incorrect interest rate will produce the wrong risk/reward behaviors. How could all liabilities be priced at one interest rate? Until real market rates are used that reflect the true cost to a pension plan to defease the liabilities, there will be inaccuracies. By definition, only zero-coupon bonds could be used since no coupon bonds have a duration greater than 15. The confusion here comes from FASB allowing annuities to price liabilities. These are quoted as a single rate pricing methodology. But, they are truly a negotiated rate and certainly not available freely to all pension plans nor quoted as a daily transparent market rate. A $200 million plan would certainly get a preferred rate to a $5 million

plan. However, pension plans above $1 billion may find it impossible to get any annuity rate for that size (none recorded yet). Since the top 100 defined benefit plans are all above $1 billion, we are talking about most pension plan dollars.

Public plans have adopted an accounting practice (GASB 25 and GASB 27) where the discount rate chosen matches the ROA assumption supposedly to avoid arbitrage. This argument makes no economic sense. For example, assume that a $1 billion pension plan prices liabilities at 9.00% instead of a market rate for the Treasury STRIP curve of, say, 5.00% (probably lower). They are 400 basis points too high with their discount rate. Using an average duration of 10-15 on the liabilities, this means that the liabilities are underpriced by 40% to 60% . If they thought the plan was fully funded (funding ratio of 100%), the actual funding ratio would be 60% or 40%. Unfortunately, this is the norm and not an isolated situation Throughout public pension land pension liabilities are much higher than thought, yet pension plans continue to raise benefits when they cannot afford to do so. This process leads to generous pension promises for today's civil servants that will burden unsuspecting future taxpayers (see Gold [2002]).

Many pension plan sponsors have been misled to believe that the discount rate on liabilities is their hurdle rate. If asset returns outperform this rate, it is believed that a surplus will be created.... *not true*! As Table 3 indicates, liability growth is volatile and can be quite high (25.96% in 2000, for example) or can be negative (-12.70% in 1999, for example). Until liabilities are priced at the market frequently, pension plan sponsors will never know their true economic return behavior.

CONTRIBUTIONS

No pension plan wants to make a contribution. So the pension pencil gets a workout trying to figure how to minimize or eliminate contributions. The Internal Revenue Service (IRS) monitors the process. IRS regulations require pricing the liabilities off the 30-year Treasury on a

weighted rolling average basis. Specifically, letting y_t denote the Treasury yield for year t, then weighted rolling average for year t is

$$40\% \times y_t + 30\% \times y_{t-1} + 20\% \times y_{t-2} + 10\% \times y_{t-3}$$

Since interest rates are quite volatile, this concoction could never represent accurate pricing of liabilities. In a bull market trend, this blended formula would always be too high a rate and vice versa in a prolonged bear market.

Moreover, corridors (i.e., a range of 90% to 120% of weighted average Treasury rate) are used to protect the plan suggesting that the plan has to be seriously underfunded to face a higher contribution. That seems to be the current environment. Even the great pension pencils cannot prevent higher contributions.

With the absence of the 30-year Treasury, it remains to be seen how the IRS will adjust this unusual formula.

CONCLUSION

It should be clear that until pensions price their assets and liabilities at the market frequently, they are in great danger of an Asset/Liability disconnect. Financial Reporting Standards 17 issued by the United Kingdom's Accounting Standards Board is a step in the right direction, removing the amortization and smoothing processes that disguise and delay the economic truth.

U.S. pension plans desperately need an economic reporting system (i.e., pension economic books). Shareholders of several major companies seem to have taken matters into their own hands. They have created a proxy battle soliciting investors to vote for a resolution separating executive compensation from earnings that have been boosted by pension credits.

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STATEMENT OF JEREMY GOLD

STOP THE INSANITY!

At the 2002 Enrolled Actuaries Meeting, Donald Segal and Tonya Manning asked ERISA authorities to "Stop the Insanity." In the authors' response to comments on our article "Reinventing Pension Actuarial Science," Larry Bader and I have said that funding rules require societal, or political, judgments. In this article, I try to identify and thereby confine, the public's interest in defined benefit plan funding. Thus, for the time being, I put aside the pursuit of a new theory of pension actuarial science in favor of a practical proposal to Stop the Insanity.

As Segal and Manning have documented, twenty-nine years of ERISA have resulted in a chaotic deluge of overlapping, often contradictory, measurements and re-

strictions designed to regulate the funding of qualified defined benefit plans for U.S. employees. We may understand such rules as the expression of the public's interest in what otherwise would be a matter of private contracts between employers and employees. I do not contest the legitimate public interest in these matters but I would like to see if we can do the public will in a fashion that will Stop the Insanity.

Public interest in the funding of private defined benefit plans comprises two issues:

- Funding should be sufficient to secure promises that have been made by employers and earned by employees—i.e., accrued benefits.
- Tax-deductible contributions should be limited. Such limitation may also be defined in relation to the value of accrued benefits.

The public does not have an interest in:

- Patterns of contributions over time, although this may be important to plan sponsors and their constituents.
- Normal costs.
- Gain and loss amortization.
- Past service costs and amortizations.
- Interest on liabilities.
- Expected returns on assets.

I believe that the six bullets above, the basics of the traditional actuarial funding processes that underlie ERISA, contribute to the Segal-Manning Insanity. Pre-ERISA, these components helped the actuary rationalize the sponsor contribution budgeting process. When the public chose to intervene, it framed the problem in terms of these components and attempted to control funding outcomes by controlling these inputs. Much of the insanity arose in response to undesirable outcomes. Thus, for example, the PBGC saw the need to define and measure the Current Liability after plans that met ERISA's minimum funding rules failed to achieve adequate funding levels.

My Sane proposal defines two simple limits: a minimum (sufficiency level) below which contributions are required and a maximum (excess level) above which no contributions are allowed. Between these levels, the public has no interest and plan funding is entirely discretionary. Actuaries may design funding schemes therein, employers may negotiate with employees and their representatives therein, stockholders and lenders may argue with management therein. The public does not care.

My proposal is the ultimate safe harbor. Within the harbor, actuaries and plan sponsors may use the elemental actuarial building blocks much as a sailor uses the tiller and the positions of sails to guide a boat. As long as the boat neither runs aground nor heads out to the open sea, the Coast Guard can rest easy.

The public must choose its measures of sufficiency and excess very carefully. Although setting the levels will be inherently political, the liability measure should be financially sound, transparent, and objective. Discounting the cash flows implied by benefit accruals to date at the Treasury yield curve meets these tests. Once set, the measures should be administered with minimal discretion and subjected to minimal political interference. Most of the political debate should be focused on setting the heights of the lower (sufficient) and upper (excessive) bars, each defined in terms of the ratio of market-valued assets to the objective liability measure.

Suppose, and I really mean this as an example and not as a recommendation, that the lower bar is set at 100 percent and that any shortfall must be one-third funded currently. The shortfall has no history and no amortization schedule. If the plan is three million dollars short, the sponsor must fund one million dollars currently regardless of whether it was underfunded or overfunded last year. There is no schedule for the other two million. If the plan remains underfunded next year, the sponsor must contribute one-third of the shortfall determined at that time. I would expect PBGC premiums to be collected from all qualified plans with a basic per-capita amount for plans that are sufficiently funded and increased amounts for plans in shortfall. Shortfall plans might be further restricted from making benefit increasing amendments.

The tradeoff for the rigorous attack on poorly funded plans is the freedom offered to the great majority of wellfunded plans. This combination should provide substantial incentive to sponsors to manage the asset/liability positions of their plans prudently as well as to exercise caution in granting benefit increases.

Suppose, again an example not a recommendation, the upper bar is set at 150 percent. The sponsor of a plan that is one million dollars short of this ceiling would be permitted to contribute and deduct one million dollars if it desired. From the public perspective, it seems to me that plans funded above the upper bar should be free to recoup such excess funding without excise taxes and without strings on the redeployment of such monies (after payment of appropriate income taxes). The IRS

may want to limit this practice for companies that appear to be taking undue advantage.

The initial bar-setting process may be as technically complicated and as political as the public will choose to demand/tolerate. Congress will be the arena for the bar-setting process; the regulatory agencies will administer that which Congress devises. Congress might choose to assign authority for lower-bar issues to the DOL and the PBGC and upper-bar issues to the IRS.

An example of a technical, complicating issue that lies within the initial process: those who share my financial economics perspective may want the lower bar to be set to recognize the nature of the plan's asset/liability mismatch. Plans invested in a liability-matching fashion might have a lower bar set at 95 percent, while poorly matched plans might face a bar set at 115 percent.

A second example: if the IRS is concerned about excessive inside build-up as well as excessive contributions, they may wish to define an upper-upper bar above which funds would be mandatorily reverted and taxed. The IRS may also deem it necessary to limit tax deductions for small plans that principally serve as tax shelters for owneremployees or other narrow groups.

I have tried to suggest a practical response to the Segal-Manning plea for sanity. The success of such a simplification scheme requires that:

- The basis for liability measurement be scientific, objective and market oriented. The thumb should be off the scale with respect to measurement.
- Setting the levels of the lower and upper bars should be as simple as possible, but no more so.

Looking beyond the immediate and practical, I hope that the inner harbor will provide substantial room for pension actuarial science to evolve, free of much of the regulation that has stunted its growth over the last three decades. We really do need to revisit and revitalize our science.

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