# RECORD OF SOCIETY OF ACTUARIES 1995 VOL. 21 NO. 4A

# PENSION PROVISIONS OF GENERAL AGREEMENT ON TARIFFS AND TRADE (GATT): FUNDING ISSUES AND THE DEFICIT REDUCTION CONTRIBUTION

Moderator:	GERALD E. CUDDIHY
Panelists:	DANIEL P. CASSIDY
	JAMES M. FORBUSH
Recorder:	GERALD E. CUDDIHY

The panel will present the technical details of calculating the deficit reduction contribution as changed by the Retirement Protection Act of 1994. This session will also cover the new solvency maintenance requirements and changes to the full-funding limitation.

MR. GERALD E. CUDDIHY: I'm going to make a few introductory comments on the GATT bill, but before I do that let me just tell you about the two speakers, Jim Forbush and Dan Cassidy, who will be handling the bulk of the presentation. Jim will begin the session by taking us through the legal aspects and Dan will get into a case study. Let me just tell you a little about each of them.

Jim is a consulting actuary with Towers Perrin in Boston. Interestingly, he became a new FSA in 1995. He works with a number of clients in the office helping them with the impact of the new law. He's as puzzled as the rest of us about why we have pension legislation tacked onto a trade bill, but, after all, it's our friendly government trying to help us. Jim is active in all kinds of sports, such as basketball, baseball, and he says that because baseball is a very rule-regulated game, it is particularly relevant to the pension business today; if you can't work your way through the rules, you can't give much advice.

Dan Cassidy is a consulting actuary with William Mercer in Boston. He is also a new FSA this year, a tribute to both of them and how they're contributing to the profession and actively participating in the programs of the Society.

Let me just make a couple of comments. We'll go through an overview, which is the part of the program I'm going to talk about. Then we'll go through the deficit reduction contribution, the old law and the new law, the liquidity requirement, the full funding requirement, and then we'll get into questions and answers.

Under prior law, plans that are 35% or less funded were having a rough time as it was. The government had taken aim at them several years ago, and they had accelerated contributions for their deficit. There was some change in the GATT law in some of the methodology and some of the way you do the calculations, but there's not a whole lot of impact. PBGC premiums are not in our discussion, but as part of the bill, their maximum has been phased out. So there's a dramatic impact for those plans. Going to the plans that are 35–75% funded, this bill begins to have some bite to it, and it stepped up the contribution requirements for those plans. So we have accelerated contributions and, once again, the phaseout of the PBGC premium cap. Into the 75–100% area we have what may be called the twilight zone from a consulting perspective or financial perspective with plan management. It's like walking on a tightrope. That's certainly an area of a great deal of activity now where people are looking at options and how do I deal with it—because if

you fall on the wrong side of a measure, you may or may not be all right. As a result it's a pretty active consulting area at the moment. For plans over 100% funded, they gave a blessing to those, and of course, we have no impact from the deficit reduction contributions and no impact on the PBGC premium.

The government has stepped up to the plate in this bill and said, "We don't like plans that are way underfunded." The government has set this 90% threshold and, if you go under, you have to tell people, but it's just not a pleasant place to be both from putting additional money into your plan and from having to tell your employees. There's obviously a great deal of pressure to keep plans fairly healthy. That's the background and Jim will now walk us through some of the provisions of the actual law.

MR. JAMES M. FORBUSH: Just as a warmup, we thought we'd spend a little time talking about the old law. If you're not familiar with the old law, you might have a little trouble with the new law. Under the old law, you had to calculate your unfunded old liabilities as of the first day of your 1988 plan year and amortize that piece over 18 years. Then you would amortize any additional unfunded current liability over a four- to ten-year schedule under the applicable percentage which was a range of approximately 13–30%. I'm not really going to talk about the unpredictable contingent event benefits. I'm not sure if many of us have had a lot of experience dealing with that. It hasn't changed too much with the new law, so we could just bypass this aspect at the moment. Under the old law, you were able to subtract from the top two pieces certain bases in the funding standard account, such as essentially plan change bases, funding waivers, and any initial unfunded liability at plan inception or at the start of the ERISA.

We'll talk about the credit balance and how this relates under the new law. Sometimes you subtract it from the assets and sometimes you don't, it gets confusing. Under the old law, when you determined your unfunded current liability, you would subtract the credit balance from your assets.

The last piece that we should talk about are the assumptions. The range of interest rates that you're allowed to use are 90-110% of the four-year weighted average, and I think we're all familiar with that. The mortality would be the mortality that you would use for funding purposes under your regular minimum calculation.

What's happening under the new law? First off, in calculating your current liability, your top end of the range is going to be sliding down from 110% to 105% over the next five years. This is still based on the four-year weighted average of 30-year Treasuries; we'll take that as a given that that's the basis. Whenever I talk about a percentage, it's going to be of that amount.

The mortality basis is now going to be the 1983 Group Annuity Mortality (GAM) table and that's only for a healthy basis. If you are using a separate disability table, you do not have to change for 1995. The IRS will be issuing a table this year to go forward. There are some special rules if people were disabled prior to 1995 or after 1995, and you might want to read up on that if you are using a separate table for disabled participants.

Let's discuss the credit balance. The threshold test, as you're probably aware, is the 90% test. This is essentially just your actuarial value of assets divided by your current liability. Note that current liability is calculated at the maximum end of the range. So, for instance,

in 1995 it would be at 109%. By not having to subtract the credit balance in doing this test, it allows you a little more flexibility in your funding. If you're willing to push up some of your contributions in a plan, you could actually push yourself over the threshold and avoid having an additional minimum for the plan year. Let me give an example. Let's say for a January 1, 1995 valuation you had an actuarial value of assets of \$85 million and current liability of \$100 million. Off the top you have 85%. Now you have a \$5 million receivable in that \$85 million that is due by September 15. Now if you can push that up ahead of your required April 15 quarterly, then your funding standard account is square. You don't have an unfunded funding standard account going forward for your April 15 quarterly. Now when you go to make your quarterly on April 15 (let's say it's a \$3 million payment), you can now make that and designate it as a 1994 contribution, and now you have a \$3 million credit balance and you can then apply for your quarterly at April 15. You can do the same procedure at July 15, and now you've put \$6 million back to January 1, 1995, and all of a sudden, instead of 85%, you're at 91% and you can avoid the whole additional funding mess. That gives you a little more flexibility than if you had to subtract the credit balance out of your assets. If you don't get the 90% exemption or if you don't apply for the special volatility rules as I'll talk about, you must still subtract the credit balance in doing all the calculations for the deficit reduction contributions.

All right, so how can you avoid this whole mess, and we haven't even seen the complex calculations yet. Well, if your plan has a funded current liability, as I mentioned, calculated at the maximum interest rate of over 90%, you get automatic relief. This is somewhat of a reprieve from the prior law that really requires a 100% threshold to avoid the calculation. So this makes it a little bit easier. If you fall below 90% and you're not applying for these volatility reliefs, then you're going to have to speed up your contributions, but it's easier to avoid them.

Now if you're over 80%, but under 90%, for the next three years, the rules provide for special transition tests that you have to pass to get volatility relief and be deemed to be above 90%. To get the relief for 1995, you must pass the test with regard to two of the years 1992, 1993, or 1994. To get the relief for 1996, you must pass the test for the year 1994 or for both in 1992 and 1993. If you pass two of the transition tests for 1992–94, you're good for two years. Even going forward, if you did two years in a row above 90% that gives you two years of reprieve. And this is similar going forward for 1997. Pass the transition in 1994 at greater than 90% for 1995, and so on and so forth. If you're less than 80%, no matter what your transition tests or no matter where you were the prior two years, you don't get relief from the calculations.

All right, these are the transition tests applicable for the next couple of years: if your fullfunding limit was zero, if your additional funding charge is small, and they say small is less than 0.5% of the current liability or \$5 million, whichever is less, or if your additional funding charge under the old law was zero or would have been zero if you had used the 110% and you didn't subtract the credit balance from the assets, you have to pass any of these transition tests for any of those three years. It doesn't have to be the same test in any case.

Consider 1998 and beyond. Essentially you need the prior two years or the second and third prior year. Unfortunately, it's not the first and third prior year. It has to be two consecutive years, and you still have to be at least above 80% to get the relief. Essentially

what's happening now is you have to pay the larger of either your regular minimum or the new deficit reduction contribution (Chart 1).

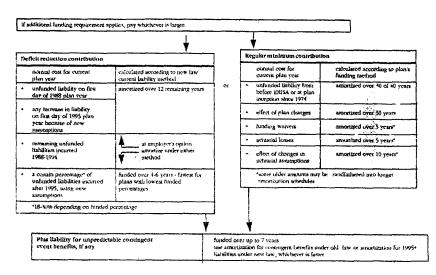


CHART 1 DEFICIT REDUCTION CONTRIBUTION (DRC)-NEW LAW

The new deficit reduction contribution is really sort of a current liability funding standard account, if you will. First take the normal cost for your current plan year. Then the next two boxes are the unfunded old liability that still remains from the old law. That's on the first day of the 1988 plan year, and there's still 12 years remaining on that 18-year amortization. And then you have to isolate any increase in liability due to the new assumptions. By doing that you look back to the 1993 plan year. If you were at, say, 105% of the range in 1993 for your current liability and you were using 1971 GAM mortality, on the first day of your 1995 plan year you would run 105% of whatever the new four-year average is under 1971 GAM. And any change from that liability to your new Retirement Protection Act (RPA) 1994 current liability will be isolated and thrown back in with the unfunded old liability. This piece is called the additional unfunded old liability, and it's amortized over 12 years.

Now what do you do with the remaining unfunded current liabilities at the first day of the 1995 plan year? You have a choice here. You can either throw them back in and amortize it over 12 years (and I believe this is called the optional rule in the new code), or you can amortize under the new faster schedule for the unfunded new liabilities, which is [sort of the bottom box on the bottom of the chart]. I'll go over that choice in a second, but essentially if you make that choice you're going to have to run new law calculations and old law calculations until 2001. If you do make that election that basically throws all your unfunded current liability into the 12-year schedule, the last piece will only count going forward. But any new unfunded current liabilities will be amortized over four to six years. As you can see, it's a faster schedule than under the old law.

Another way to look at the new deficit reduction calculation is instead of just offsetting for plan changes and funding waivers, you're now offsetting all of the 412(b) charges on the right, and you're throwing in a current liability normal cost that on the surface is not so complex. When you start talking about the transitions, it starts to get difficult. This is the irrevocable election or the optional rule for the additional old liability. Now, again, this piece deals with any remaining unfunded old liabilities during 1988–94 notwithstanding the original old liability. As I said, if you elect this, you throw it into a 12-year amortization schedule, but then you have to compare the old law calculations with the new calculations, and you can really get different answers. The old law might actually be worse for you depending on the makeup of those liabilities and the amortization basis you have in your funding standard account. So that really probably requires some modeling if you have some significant liabilities because this thing could change. Even throughout 1995–2001 you might get different answers for different years. If you don't elect this, then, as I said, you have to isolate the change in the current liability from the 1993–95 assumptions.

We like to call the next piece the transition rule. In the code it's now called the "phase-in of increases in funding required by 1994 RPA." *Transition rule* is a little shorter and sweeter. If you want to maintain old law and new law calculations from 1995 to 2001 you can to calculate a target percentage. You start with your funded percentage at January 1995. Let's say that's 75%. That target is going to increase by 2–3% per year; you know it's basically additive. So if you're starting at 75%, that's going to be a 3% addition that gets you to 78%. Once you get into the 75–85% zone, it phases down to 2%. We didn't note this here, but that speeds up in the years 2000–2001. The two to three becomes three to four, I believe, in the year 2000 and then four to five in the year 2001. They're really trying to get some of these plans prepared for when they jump out in 2002 and they have to go straight to the new law calculation.

Let's review again how the new law compares to the old law. The current liability is going to be calculated under a new set of assumptions. There's a slightly different treatment of the credit balance in trying to avoid all these calculations. It's a change from a building block approach. I always thought of the additional funding charge as a tack on piece, and now really it's kind of a comparison piece; I think it's easier conceptually and it makes a little more sense. We get faster amortization instead of a four-to-ten-year amortization schedule, generally speaking. Now we have a four- to six-year schedule, so it's really narrowing the range, and again, this is impacted by some of these transition rules. In most of the impact, if you look at the percentage plans under 35%, they aren't going to have to fund much faster. It's really the plans between 35% and 75% that are going to have to kick in. And one of the new participant notice requirements is, if you have an additional funding charge and you have a variable premium due to the PBGC, you're going to have to give a notice to your participant saying the plan has this certain funded percentage, and the PBGC only guarantees this much in benefits. Many of our clients don't want to get into that mess, so we've done a lot of work in planning and modeling this stuff out in order to avoid getting an additional funding charge. Dan, in his case study, is going to talk about proactive management of your funded status. It gets a little difficult in trying to predict 30-year Treasuries, but the four-year averaging helps.

MR. DANIEL P. CASSIDY: For our case study, I've posted up a history of the study's minimum contributions and maximum deductible contributions (Table 1). For the last couple of years, and you'll notice in 1990, this plan was fully funded. However, since

then it has had some substantial contributions. It has been paying the minimum throughout this whole time and not paying anything more than that. So the plan has had a worsening funded status throughout this period of 1990-95, a combination of declining interest rates, poor capital market performance and poorly performing assets. The plan also had several plan improvements, and it just paid the minimum. This is a classic case study if you wanted to pick a plan that really needs to do some management in terms of its contribution schedule in the next couple of years due to the 1994 RPA, especially going to Jim's last point with the participant notification.

### TABLE 1 DEFICIT REDUCTION CONTRIBUTION (DRC)—NEW LAW CASE STUDY—HISTORY OF PLAN FUNDING STATUS HISTORICAL PLAN CONTRIBUTIONS (IN MILLIONS) \*

Plan Year	·····	
1990	\$0.0	\$0.0
1991	4.0	7.0
1992	4.0	10.0
1993	3.5	18.0
1994	6.5	32.0

\*Worsening funded status relative to current liability

Declining interest rates

· Poor capital market performance

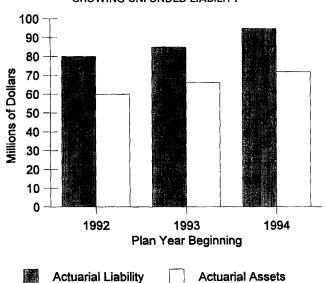
Plan improvements 1989, 1991, 1994

Payment of ERISA minimum

Chart 2 shows you how the actuarial accrued liability has been growing compared to the asset value, the actuarial smoothed value of assets. It is not very interesting. It's just growing. The unfunded liability is growing. The more interesting picture is on the current liability (Chart 3) and here we see the leveraging of the reduction in the current liability rates since 1992. It was just substantial back in 1994, so the plan's funded status has declined substantially.

Chart 4 basically maps out a projection of the plan's minimum requirement for the next almost ten years to 2002 under the current law. This is the first step in modeling contribution ongoing. Actually I'm only showing you one alternative. There are several alternatives run for this client with varying current liability interest rates in the future. I think there actually were three values of that combined with different asset performances, so there was a big matrix if you imagine that with the client assignment, but for this discussion, we've narrowed it down to just one scenario. So they just basically mapped this out over time, and you can see that here.

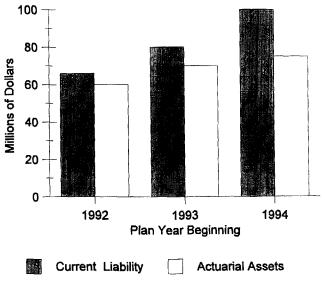
One interesting point, just to clarify why the plan managers have really been caught offguard paying their minimum, is they've actually had negative amortizations because of the gains and losses that have been phasing in over five years, and these have really outweighed some of their long-term plan improvements (Chart 5). So when they contributed the minimum in 1992, 1993, and 1994, it actually was less than the normal cost, so this was really aggravating their funded status as well.





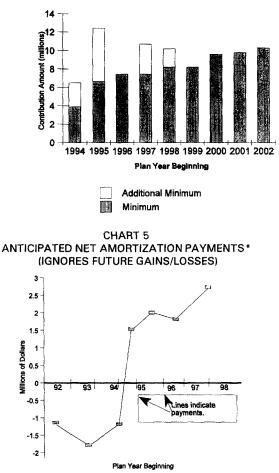
# CHART 3

HISTORY OF ACTUARIAL VALUE OF ASSETS VERSUS CURRENT LIABILITY\*



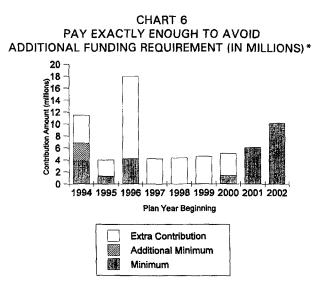
\* Note: Reduction in CL interest leverages deficit position





\* Note: Amortization of gain produces a minimum less than normal cost.

The next step was first to project what it would be under the new law, and I have a couple interesting points here (Chart 6). We're mapping the contribution to pay exactly the amount necessary to avoid additional funding requirements so that the plan managers would not have to notify their participants. You can see 1994–95 and then the big bump in 1996, and you might ask, why is that there? It really is there because in 1997 the transition rules go away. Jim, I hope I get this correct. You have to be 90% in two years prior to that. They were only 80% in 1994 and 1995, and in 1996 they had to get up to 90% so they could pass the transition test in 1997. That's why there was that huge contribution in 1996 to get them up to the 90%. If they didn't do that, they wouldn't have passed that two-out-of-three test.



\*Note: New law DRC; note large 1996 contribution to avoid 1997 DRC

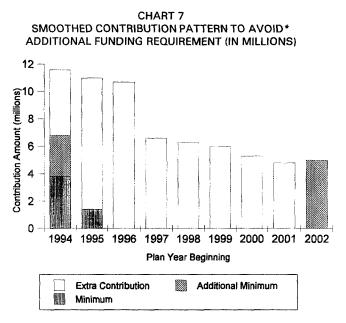
The client looked at this and really didn't like that 1996 contribution, and basically said, "Hey, for budgeting purposes, can you come up with something somewhat more realistic. We know we're going to have to contribute some money, but we just can't budget a contribution that skyrockets in one year and then backs down. You know, it goes up to \$18 million and then the next year down to \$4 million." The client just didn't want to do that. Basically we came to smooth the contributions over the next couple of years so that there is not that big a jump. One thing to note is the scale on these graphs have changed, so now the upper part is only \$12 million (Chart 7). Chart 6 went up to I think, \$20 million. The basic idea here is to amortize the present value of that large contribution and pay it over 1994–95. So the additional pieces there allow you to get up to 90% in two of the three years before 1997. I just want to reiterate this was just one scenario mapping out the future. There are many different other scenarios going on here, and it's something that will be monitored over time and adjusted as we go forward.

To summarize, I have a couple of different points that Jim made earlier concerning strategies to minimize the effect of 1994 RPA. The one thing that Jim mentioned earlier was to reallocate the contributions, both the receivables that you have as well as the quarterly payments the prior year because of the credit balance impact. If you can jump over that 90% by reallocating some contributions, it really helps you out in the long-term to avoid some additional funding charges.

The next item is just accelerated funding. Like we mentioned in the case study, instead of paying a big number in 1996, you might want to smooth that out over time. Also, it's basically just pay more money now to get over those 90% requirements, so you don't have to notify your participants.

Another thing is just forecast. Forecast the minimum contributions like I mentioned, both modeling interest rate and contribution levels. Finally, if you have lump sum payments in

the plan, you may want to postpone paying those out of the trust to after say a January 1 plan year. Pay them out the first week after January 1, because it's critical. Your asset on that first day of the plan year is critical in the calculation of that threshold test, so you may want to discuss that with your client as well.



\*Note: CL funded percentage > 90% in 1995 in 1996

I'm going to move on to the last two subjects of our discussion, liquidity requirements and full funding. The liquidity requirements going forward are a major change, but they really are going to be I think a very rare occurrence. Basically what it says is that you have to have enough liquid assets to cover benefit payments for the last three years. By liquid assets, they basically mean cash or marketable securities, options, and futures. Anything that has an existing market out there can be considered a liquid asset. Assets that are not liquid are real estate, limited partnerships, and others for which there is not a market out there that you can measure critically at a period in time.

I would suspect that most plans have a major part of their assets in liquid investments. Like I mentioned, the plans have to cover three years of benefit disbursements. You calculate a thing that is called the face amount and that varies with the funded status with the plan as well as lump-sum payments. If your funded status is higher, you can reduce your liquidity requirement. You have to do this on a quarterly basis. If you are impacted by this, you need to update each one of these every quarter and adjust your following quarterly payment.

So with regards to timing, it would actually be very difficult to get all that in place. When a quarter ends and you're 15 days to your next contribution, you have to get your trust statement, look at it, calculate this liquidity requirement and then adjust your quarterly

payment. So the nuts and bolts of complying with this would be very difficult in a normal situation. And especially if your assets weren't liquid, what does it all mean to get a value of that on each quarter? So, again, it's very difficult. If you are impacted by this, it's going to be very difficult and onerous.

There is relief for nonrecurring circumstances like plant shutdowns, and they define this as benefit payments over two times the regular base amount. One requirement is that an enrolled actuary has to sign off on a plant shutdown. The relief gives you complete relief from that situation, so if that happens, you'll have to sign your name on the dotted line. If you fail this requirement, that is, if you do not have enough liquid assets to cover three years of benefit payments, you adjust your quarterly contributions. And, like I mentioned earlier, that's 15 days after you calculated the thing. It would be very difficult to do.

Finally if you miss a contribution, you are restricted in paying lump sums in the future. Also, I didn't mention additional interest charges—missing a contribution is just like missing a quarterly payment. There are additional penalty interest charges as well as excise taxes. So really there are three different penalties for not making it. A primary one I guess in my mind would be the lump-sum payment.

Now let's consider the full funding limit. Basically a small change here is trying to fix what some actuaries have been doing by adjusting their 412 assumptions to put plans into full funding. That is, if you did the current liability test, they're really underfunded. So what this is trying to get at is the change here that was included in RPA 94—just a small reminder of the old law. You have the smaller of the two like I mentioned, and actuaries were adjusting to force plans into full funding on, again, the old current liability basis that Jim mentioned earlier.

The new law puts a threshold amount for the full funding limit at a 90% funded status of the enhanced current liability. The enhanced current liability is very similar to the RPA liability, 90–109%. You have the mortality, again the 1983 GAM. And here the threshold is the 90% minus the actuarial value of assets, and the credit balance here is not subtracted from the assets for that test. Your full funding limit can never go below this figure. It's going to impact plans that were adjusting that 412 basis. Also, it allowed plans that want to maximize their contributions. You know this will allow them to do this as well.

I have some attachments to look at. The first one is a chart in care of my employer. We put out a book going through the RPA 94. Chart 8 is a very helpful flow chart that we use to map out the next couple of years and how you're impacted by RPA 1994. It's very helpful. I use it everyday.

Table 2 is an enrolled actuaries meeting question that outlines the different assumptions, interest rates, and so on, that are to be used. You're going to have multiple assumption bases, and this outlines when you use what and how. Jim has some examples of additional funding calculations, different alternatives, and other similar things (Table 3).

#### TABLE 2 **RETIREMENT PROTECTION ACT FUNDING-**CURRENT LIABILITY DETERMINATION IN VARIOUS SITUATIONS

		Current Liability Determi	Assets Reduced	
Code Section	Purpose	Assumptions	Include CLNC?	by Credit Balance
404(a)(1)(D)	Unfunded CL Deduction Limit	New	Undecided	No*
412(c)(7)(A)(i)	150% FFL	412(b) Mortality; 90–110% Interest Corridor	Yes	404-No 412-Yes
412(c)(7)(E)	New Minimum FFL (for 404)	New	Yes	No
412(1)(1)	Max. AFR (Unfunded CL)	New	Yes	Yes
412(I)(3)(E)	Old Law AFR	412(b) Mortality; 90%–110%Interest Corridor	No	Yes
412(I)(4)	New Liability Amort. Factor	New	No	Yes
412(I)(9)(C)	New 80%/90% Exemption	New; Max. Interest Rate	No	No
412( )(11)	Phase in Transition AFR	New	Yes	Yes
412(m)(1)	Qtrly. Contrib. Exemption	New (except in 1995 which reflects 1994 assumptions)	Undecided	No*
412(m)(5)(D)	Qtrly. Liquidity Payment Limit	New	Yes	No*

\*Unless Secretary of Treasury specifically states otherwise.

Notes: CLNC: Expected increase in current liability die to benefits accruing during the year "New" Assumptions: 1983 GAM and new interest rate corridor (90%-109% in 1995).

Additional Funding requirement under Section 412(I). AFR:

FFL: Full funding limitation under Section 412(c)(7).

#### CHART 8 ARE YOU REQUIRED TO MAKE AN ADDITIONAL MINIMUM CONTRIBUTION?

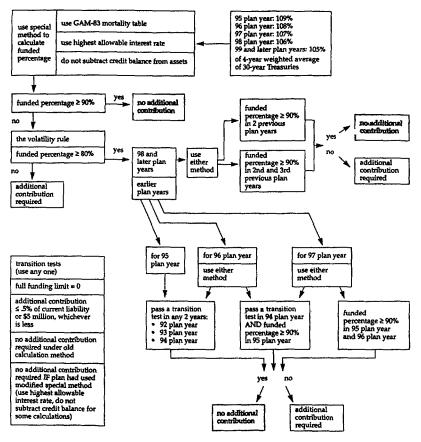


	TABLE 3
RPA	1994 ADDITIONAL FUNDING CHARGE EXAMPLE

		nput Items		
<ol> <li>Pass Volatiltγ Relief Te</li> <li>Optional Rule Elected</li> <li>Calculate Target Rule</li> </ol>	st			Yes No Yes
	Summary	of Valuatio	n Results	
Current Liabilities	Mortality	Interest	Current Liability	CL Normal Cost
1. OBRA 1987 2. RPA 1994 3. Threshold 4. 1993 Assumptions	GA-71 GA-83 GA-83 GA-71	8.00% 7.93 7.93 8.00	\$12,997,374 13,777,216 13,777,216 12,997,374	NA \$709,633 NA NA
Other Results         \$10,782,864           1. Actuarial Value of Assets         \$10,782,864           2. Credit Balance         1,079,166           3. 412(b) Interest Rate         9.00%           4. 412(b) Amortization Charges:         0           (a) Plan Changes         0           (b) Other <u>91,849</u> (c) Total         91,849           5. 412(b) Normal Cost         614,485				
Threshold Calculation				
<ol> <li>Threshold Current Liab</li> <li>Actuarial Value of Asso</li> <li>Ratio: (2)/(1)</li> </ol>	•			\$13,777,216 10,782,864 78.27%

### TABLE 3-CONTINUED CALCULATION OF MINIMIUM REQUIREED CONTRIBUTION - BF

<ul> <li>2. Adjusted Assets (AVA-CB)</li> <li>3. Unfunded CL: (1) – (2)</li> <li>4. Funded CL%: (2)/(1)</li> </ul> Unfunded OLD LIABILITY Amount <ul> <li>5. OBRA '87 UOL</li> <li>6. Additional UOL excess of (1) over '93 CL</li> <li>OR (3) – (5) if optional rule selected</li> <li>7. Total OUL: (5) + (6)</li> <li>8. OUL Amount: Amortization of (7) over 12 years</li> </ul> Unfunded NEW LIABILITY Amount <ul> <li>9. Unfunded New Liability (3) – (7)</li> <li>10. Applicable Percentage:</li> <li>For OBRA '87: 30% – Max (0,(4) – 35%)*25%</li> <li>For RPA '94: 30% – Max (0,(4) – 60%)*40%</li> <li>11. Unfunded New Liability Amount: (9)*(10)</li> </ul> Preliminary Additional Funding Charge <ul> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	\$12,997,374 9,703,698 3,293,676 74.66% \$369,451 NA 369,451 45,393 \$2,924,225 20.09% 587,477	\$13,777,216 9,703,698 4,073,518 70.43% \$369,451 779,842 1,149,293 140,788 \$2,924,225 25.83% 755,327
<ul> <li>1. Current Liability</li> <li>2. Adjusted Assets (AVA-CB)</li> <li>3. Unfunded CL: (1) – (2)</li> <li>4. Funded CL%: (2)/(1)</li> </ul> Unfunded OLD LIABILITY Amount <ul> <li>5. OBRA '87 UOL</li> <li>6. Additional UOL excess of (1) over '93 CL</li> <li>OR (3) – (5) if optional rule selected</li> <li>7. Total OUL: (5) + (6)</li> <li>8. OUL Amount: Amortization of (7) over 12 years</li> </ul> Unfunded NEW LIABILITY Amount <ul> <li>9. Unfunded New Liability (3) – (7)</li> <li>10. Applicable Percentage:</li> <li>For OBRA '87: 30% – Max (0,(4) – 35%)*25%</li> <li>For RPA '94: 30% – Max (0,(4) – 60%)*40%</li> <li>11. Unfunded New Liability Amount: (9)*(10)</li> </ul> Preliminary Additional Funding Charge <ul> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	9,703,698 3,293,676 74.66% \$369,451 NA 369,451 45,393 \$2,924,225 20.09%	9,703,698 4,073,518 70.43% \$369,451 779,842 1,149,293 140,788 \$2,924,225 25.83%
<ul> <li>2. Adjusted Assets (AVA-CB)</li> <li>3. Unfunded CL: (1) – (2)</li> <li>4. Funded CL%: (2)/(1)</li> </ul> Unfunded OLD LIABILITY Amount <ul> <li>5. OBRA '87 UOL</li> <li>6. Additional UOL excess of (1) over '93 CL</li> <li>OR (3) – (5) if optional rule selected</li> <li>7. Total OUL: (5) + (6)</li> <li>8. OUL Amount: Amortization of (7) over 12 years</li> </ul> Unfunded NEW LIABILITY Amount <ul> <li>9. Unfunded New Liability (3) – (7)</li> <li>10. Applicable Percentage:</li> <li>For OBRA '87: 30% – Max (0,(4) – 35%)*25%</li> <li>For RPA '94: 30% – Max (0,(4) – 60%)*40%</li> <li>11. Unfunded New Liability Amount: (9)*(10)</li> </ul> Preliminary Additional Funding Charge <ul> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	9,703,698 3,293,676 74.66% \$369,451 NA 369,451 45,393 \$2,924,225 20.09%	9,703,698 4,073,518 70.43% \$369,451 779,842 1,149,293 140,788 \$2,924,225 25.83%
<ul> <li>3. Unfunded CL: (1) – (2)</li> <li>4. Funded CL%: (2)/(1)</li> <li>Unfunded OLD LIABILITY Amount</li> <li>5. OBRA '87 UOL</li> <li>6. Additional UOL excess of (1) over '93 CL OR (3) – (5) if optional rule selected</li> <li>7. Total OUL: (5) + (6)</li> <li>8. OUL Amount: Amortization of (7) over 12 years</li> <li>Unfunded NEW LIABILITY Amount</li> <li>9. Unfunded New Liability (3) – (7)</li> <li>10. Applicable Percentage: For OBRA '87: 30% – Max (0,(4) – 35%)*25% For RPA '94: 30% – Max (0,(4) – 60%)*40%</li> <li>11. Unfunded New Liability Amount: (9)*(10)</li> <li>Preliminary Additional Funding Charge</li> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	3,293,676 74.66% \$369,451 NA 369,451 45,393 \$2,924,225 20.09%	4,073,518 70.43% \$369,451 779,842 1,149,293 140,788 \$2,924,225 25.83%
<ul> <li>4. Funded CL%: (2)/(1)</li> <li>Unfunded OLD LIABILITY Amount</li> <li>5. OBRA '87 UOL</li> <li>6. Additional UOL excess of (1) over '93 CL OR (3) – (5) if optional rule selected</li> <li>7. Total OUL: (5) + (6)</li> <li>8. OUL Amount: Amortization of (7) over 12 years</li> <li>Unfunded NEW LIABILITY Amount</li> <li>9. Unfunded New Liability (3) – (7)</li> <li>10. Applicable Percentage: For OBRA '87: 30% – Max (0,(4) – 35%)*25% For RPA '94: 30% – Max (0,(4) – 60%)*40%</li> <li>11. Unfunded New Liability Amount: (9)*(10)</li> <li>Preliminary Additional Funding Charge</li> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	74.66% \$369,451 NA 369,451 45,393 \$2,924,225 20.09%	70.43% \$369,451 779,842 1,149,293 140,788 \$2,924,225 25.83%
<ul> <li>Unfunded OLD LIABILITY Amount</li> <li>5. OBRA '87 UOL</li> <li>6. Additional UOL excess of (1) over '93 CL OR (3) – (5) if optional rule selected</li> <li>7. Total OUL: (5) + (6)</li> <li>8. OUL Amount: Amortization of (7) over 12 years</li> <li>Unfunded NEW LIABILITY Amount</li> <li>9. Unfunded New Liability (3) – (7)</li> <li>10. Applicable Percentage: For OBRA '87: 30% – Max (0,(4) – 35%)*25% For RPA '94: 30% – Max (0,(4) – 60%)*40%</li> <li>11. Unfunded New Liability Amount: (9)*(10)</li> <li>Preliminary Additional Funding Charge</li> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	\$369,451 NA 369,451 45,393 \$2,924,225 20.09%	\$369,451 779,842 1,149,293 140,788 \$2,924,225 25.83%
<ul> <li>5. OBRA '87 UOL</li> <li>6. Additional UOL excess of (1) over '93 CL OR (3) – (5) if optional rule selected</li> <li>7. Total OUL: (5) + (6)</li> <li>8. OUL Amount: Amortization of (7) over 12 years</li> </ul> Unfunded NEW LIABILITY Amount <ul> <li>9. Unfunded New Liability (3) – (7)</li> <li>10. Applicable Percentage: For OBRA '87: 30% – Max (0,(4) – 35%)*25% For RPA '94: 30% – Max (0,(4) – 60%)*40%</li> <li>11. Unfunded New Liability Amount: (9)*(10)</li> </ul> Preliminary Additional Funding Charge <ul> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	NA 369,451 45,393 \$2,924,225 20.09%	779,842 1,149,293 140,788 \$2,924,225 25.83%
<ul> <li>6. Additional UOL excess of (1) over '93 CL OR (3) – (5) if optional rule selected</li> <li>7. Total OUL: (5) + (6)</li> <li>8. OUL Amount: Amortization of (7) over 12 years</li> <li>Unfunded NEW LIABILITY Amount</li> <li>9. Unfunded New Liability (3) – (7)</li> <li>10. Applicable Percentage: For OBRA '87: 30% – Max (0,(4) – 35%)*25% For RPA '94: 30% – Max (0,(4) – 60%)*40%</li> <li>11. Unfunded New Liability Amount: (9)*(10)</li> <li>Preliminary Additional Funding Charge</li> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	NA 369,451 45,393 \$2,924,225 20.09%	779,842 1,149,293 140,788 \$2,924,225 25.83%
<ul> <li>OR (3) – (5) if optional rule selected</li> <li>7. Total OUL: (5) + (6)</li> <li>8. OUL Amount: Amortization of (7) over 12 years</li> <li>Unfunded NEW LIABILITY Amount</li> <li>9. Unfunded New Liability (3) – (7)</li> <li>10. Applicable Percentage: For OBRA '87: 30% – Max (0,(4) – 35%)*25% For RPA '94: 30% – Max (0,(4) – 60%)*40%</li> <li>11. Unfunded New Liability Amount: (9)*(10)</li> <li>Preliminary Additional Funding Charge</li> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	369,451 45,393 \$2,924,225 20.09%	1,149,293 140,788 \$2,924,225 25.83%
<ul> <li>7. Total OUL: (5)+(6)</li> <li>8. OUL Amount: Amortization of (7) over 12 years</li> <li>Unfunded NEW LIABILITY Amount</li> <li>9. Unfunded New Liability (3) - (7)</li> <li>10. Applicable Percentage: For OBRA '87: 30% - Max (0,(4) - 35%)*25% For RPA '94: 30% - Max (0,(4) - 60%)*40%</li> <li>11. Unfunded New Liability Amount: (9)*(10)</li> <li>Preliminary Additional Funding Charge</li> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	369,451 45,393 \$2,924,225 20.09%	1,149,293 140,788 \$2,924,225 25.83%
<ul> <li>8. OUL Amount: Amortization of (7) over 12 years</li> <li>Unfunded NEW LIABILITY Amount</li> <li>9. Unfunded New Liability (3) – (7)</li> <li>10. Applicable Percentage: For OBRA '87: 30% – Max (0,(4) – 35%)*25% For RPA '94: 30% – Max (0,(4) – 60%)*40%</li> <li>11. Unfunded New Liability Amount: (9)*(10)</li> <li>Preliminary Additional Funding Charge</li> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	45,393 \$2,924,225 20.09%	140,788 \$2,924,225 25.83%
years Unfunded NEW LIABILITY Amount 9. Unfunded New Liability (3) – (7) 10. Applicable Percentage: For OBRA '87: 30% – Max (0,(4) – 35%)*25% For RPA '94: 30% – Max (0,(4) – 60%)*40% 11. Unfunded New Liability Amount: (9)*(10) Preliminary Additional Funding Charge 12. Current Liability NC 13. Deficit Reduction Contribution: (8) + (11) + (12) 14. 412(b) Offset	\$2,924,225 20.09%	\$2,924,225 25.83%
Unfunded NEW LIABILITY Amount 9. Unfunded New Liability (3) – (7) 10. Applicable Percentage: For OBRA '87: 30% – Max (0,(4) – 35%)*25% For RPA '94: 30% – Max (0,(4) – 60%)*40% 11. Unfunded New Liability Amount: (9)*(10) Preliminary Additional Funding Charge 12. Current Liability NC 13. Deficit Reduction Contribution: (8) + (11) + (12) 14. 412(b) Offset	\$2,924,225 20.09%	\$2,924,225 25.83%
<ul> <li>9. Unfunded New Liability (3) – (7)</li> <li>10. Applicable Percentage: For OBRA '87: 30% – Max (0,(4) – 35%)*25% For RPA '94: 30% – Max (0,(4) – 60%)*40%</li> <li>11. Unfunded New Liability Amount: (9)*(10)</li> <li>Preliminary Additional Funding Charge</li> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	20.09%	25.83%
<ul> <li>9. Unfunded New Liability (3) – (7)</li> <li>10. Applicable Percentage: For OBRA '87: 30% – Max (0,(4) – 35%)*25% For RPA '94: 30% – Max (0,(4) – 60%)*40%</li> <li>11. Unfunded New Liability Amount: (9)*(10)</li> <li>Preliminary Additional Funding Charge</li> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	20.09%	25.83%
<ul> <li>10. Applicable Percentage: For OBRA '87: 30% – Max (0,(4) – 35%)*25% For RPA '94: 30% – Max (0,(4) – 60%)*40%</li> <li>11. Unfunded New Liability Amount: (9)*(10)</li> <li>Preliminary Additional Funding Charge</li> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	20.09%	25.83%
For OBRA '87: 30% – Max (0,(4) – 35%)*25% For RPA '94: 30% – Max (0,(4) – 60%)*40% 11. Unfunded New Liability Amount: (9)*(10) Preliminary Additional Funding Charge 12. Current Liability NC 13. Deficit Reduction Contribution: (8) + (11) + (12) 14. 412(b) Offset		
For RPA '94: 30% – Max (0,(4) – 60%)*40% 11. Unfunded New Liability Amount: (9)*(10) Preliminary Additional Funding Charge 12. Current Liability NC 13. Deficit Reduction Contribution: (8) + (11) + (12) 14. 412(b) Offset		
<ul> <li>11. Unfunded New Liability Amount: (9)*(10)</li> <li>Preliminary Additional Funding Charge</li> <li>12. Current Liability NC</li> <li>13. Deficit Reduction Contribution: (8) + (11) + (12)</li> <li>14. 412(b) Offset</li> </ul>	587,477	755,327
Preliminary Additional Funding Charge 12. Current Liability NC 13. Deficit Reduction Contribution: (8) + (11) + (12) 14. 412(b) Offset		
12. Current Liability NC 13. Deficit Reduction Contribution: (8) + (11) + (12) 14. 412(b) Offset		
13. Deficit Reduction Contribution: (8) + (11) + (12) 14. 412(b) Offset		
14. 412(b) Offset	NA	\$709,633
	\$632,870	1,605,748
1E Additional Eurodian Charges Mar(0/10) /14)	0	706,334
15. Additional Funding Charges: Max(0,(13) – (14))	632,870	899,414
16. AFC w/ Interest to year-end	683,499	970,738
Townet Transition Dula		
Target Transition Rule 17. Prior Year Target: (4) in 1995	NA	70.43%
18. Maximum Required Funding %:		
(17) + 2% + MIN(1%, MAX(0,85% - (17))*0.1)	NA	73.43%
19. Contribution Required to Reach Max %:		
(18)*[(1)+(12)] - (2)	NA	\$933,995
20. 412(b) Offset	NA	706,334
21. Preliminary Target Contribution:		
MAX(0,(19) – (20)) w/ interest	NA	245,715
22. OBRA '87 AFC from above	NA	683,499
23. Maximum Target Contribution: MAX((21),(22))	NA	683,499
· · · · · · · · · · · · · · · · · · ·	<u></u>	
Minimum Required Contribution	Old Law	New Law
24. 412(b) Charges w/ Interest	\$769,904	\$769,904
25. Additional Funding Charge (EOY): MIN ((16),		
(23)), not less than OBRA '87	602 400	602 400
AFC if optional rule elected	683,499	683,499 1,176,291
26. Credit Balance w/ Interest	1,176,291	
27. Minimum Contribution: (24) + (25) (26)	277,112	277,112

### TABLE 3-CONTINUED RPA 1994 ADDITIONAL FUNDING CHARGE EXAMPLE

		Input Items			
1. Pass Volatility Relief				Yes	
2. Optional Rule Elected				Yes	
3. Calculate Target Rule	•			Yes	
	Summary	of Valuatio	n Results		
Current Liabilities	Mortality	Interest	Current Liability	CL Normal Cost	
1.0BRA 1987	GA-71	8.00%	\$12,997,374	NA	
2. RPA 1994	GA-83	7.93	13,777,216	\$709,633	
3. Threshold	GA-83	7.93	13,777,216	NA	
4. 1993 Assumptions	GA-71	8.00	12,997,374	NA	
Other Results	Other Results				
1. Actuarial Value of As	1. Actuarial Value of Assets \$10,782,864				
2. Credit Balance 1,079,1					
3. 412(b) Interest Rate 9.009					
4. 412(b) Amortization Charges:					
(a) Plan Changes					
(b) Other				<u>91,849</u>	
(c) Total				91,849	
5. 412(b) Normal Cost 614,48					
Threshold Calculation					
1. Threshold Current Lia	ability			\$13,777,216	
2. Actuarial Value of As	2. Actuarial Value of Assets 10,782,864				
3. Ratio: (2)/(1)				78.27%	

### TABLE 3 – CONTINUED CALCULATION OF MINIMUM REQUIRED CONTRIBUTION

	OBRA '87	RPA '94
Input Items		
1. Current Liability	\$12,997,374	\$13,777,216
2. Adjusted Assets (AVA – CB)	9,703,698	9,703,698
3. Unfunded CL: (1) – (2)	3,293,676	4,073,518
4. Funded CL%: (2)/(1)	74.66%	70.43%
Unfunded OLD LIABILITY Amount		
5. OBRA '87 UOL	\$369,451	\$369,451
6. Additional UOL excess of (1) over '93 CL OR	\$505,457	\$505,451
(3) - (5) if optional rule selected	NA	3,704,067
7. Total OUL: $(5) + (6)$	369,451	4,073,518
8. OUL Amount: Amortization of (7) over 12 years	45,393	499,006
Unfunded NEW LIABILITY Amount		
9. Unfunded New Liability (3) - (7)	\$2,924,225	\$0
10. Applicable Percentage:		
For OBRA '87: 30% – Max(0,(4) – 35%) *25%		
For RPA '94: 30% – Max(0,(4) – 60%) *40%	20.09%	25.83%
11. Unfunded New Liability Amount: (9)*(10)	\$587,477	\$0
Preliminary Additional Funding Charge		
12. Current Liability NC	NA	\$709,633
13. Deficit Reduction Contribution: $(8) + (11) + (12)$	\$632,870	1,208,639
14. 412(b) Offset	0	706,334
15. Additional Funding Charge: Max(0,(13) – (14))	632,870	502,305
16. AFC w/ Interest to year-end	683,499	542,137
Target Transition Rule	NA	70.43%
17. Prior Year Target: (4) in 1995		/0.43 /0
18. Maximum Required Funding %: (17) + 2% + MIN(1%, MAX(0,85% - (17))*0.1)	NA	73.43%
19. Contribution Required to Reach Max %:		/ 0.40/0
(18)*[(1)+(12)]-(2)	NA	\$933,995
20. 412(b) Offset	NA	706,334
21. Preliminary Target Contribution:		
MAX(0,(19) – (20)) w/ interest	NA	245,715
22. OBRA '87 AFC from above	NA	683,499
23. Maximum Target Contribution: MAX((21),(22))	NA	683,499
		<u> </u>
Minimum Required Contribution	Old Law	New Law
24. 412(b) Changes w/ Interest	\$769,904	\$769,904
25. Additional Funding Charge (EOY): MIN ((16),		1
(23)), not less than OBRA '87	000 400	
AFC if optional rule elected	683,499	683,499
26. Credit Balance w/ Interest	1,176,291	1,176,291
27. Minimum Contribution: (24) + (25) – (26)	277,112	277,112

### TABLE 3-CONTINUED RPA 1994 ADDITIONAL FUNDING CHARGE EXAMPLE

Input Items				
<ol> <li>Pass Volatility Relief</li> <li>Optional Rule Electe</li> <li>Calculate Target Rul</li> </ol>	d			No Yes Yes
	Summary	of Valuatio	on Results	
Current Liabilities	Mortality	Interest	Current Liability	CL Normal Cost
1. OBRA '87 2. RPA '94 3. Threshold 4. 1993 Assumptions	GA-83 GA-83 GA-83 GA-83	8.00% 7.93% 7.93% 8.00%	\$7,083,657 7,123,741 7,123,741 7,083,657	NA \$62,173 NA NA
A. 1995 Assumptions       CA 65       0.00 /s       0.00 /s       0.00 /s         Other Results:       1. Actuarial Value of Assets       \$6,054,739         2. Credit Balance       568,448         3. 412(b) Interest Rate       8.50%         4. 412(b) Amortization Charges:       370,199         (b) Other       (248,952)         (c) Total       \$121,247         5. 412(b) Normal Cost       29,609				
Summary of Valuation I 1. Threshold Current Li 2. Actuarial Value of A 3. Ratio: (2)/(1)	ability			\$7,123,741 6,054,739 84.99%

## TABLE 3—CONTINUED RPA 1994 ADDITIONAL FUNDING CHARGE EXAMPLE

Calculation of Minimum Required Contribution			
	OBRA '87	RPA '94	
Input Items 1. Current Liability	\$7,083,657	67 100 7/1	
2. Adjusted Assets (AVA-CB)	5,486,291	\$7,123,741 5,486,291	
3. Unfunded CL: (1) – (2)	1,597,366	1,637,450	
4. Funded CL%: (2)/(1)	77.45%	77.01%	
	77.4570	77.0170	
Unfunded OLD LIABILITY Amount			
5. OBRA '87 UOL	\$441,649	\$441,649	
6. Additional UOL excess of (1) over '93 CL OR			
(3) – (5) if optional rule selected	NA	1,195,801	
7. Total OUL: (5) + (6)	441,649	1,637,450	
8. OUL Amount: Amortization of (7) over 12			
years	54,264	200,587	
Unfunded NEW LIABILITY Amount			
9. Unfunded New Liability: (3) – (7)	\$1,155,717	0	
10. Applicable Percentage:			
For OBRA '87: 30% – Max (0,(4) – 35%) *25%			
For RPA '94: 30% – Max (0,(4) – 60%)*40%	19.39%	23.30%	
11. Unfunded New Liability Amount: (9)*(10)	224,094	0	
Preliminary Additional Funding Charge			
12. Current Liability NC	NA	\$62,173	
13. Deficit Reduction Contribution: $(8) + (11) + (12)$	\$278,358	262,760	
14. 412(b) Offset	370,199	150,856	
15. Additional Funding Charges: Max(0,(13) - (14))	0	111,904	
16. AFC w/ Interest to year-end	0	120,778	
Target Transition Rule			
17. Prior Year Target: (4) in 1995	NA	77.01%	
18. Maximum Required Funding %:			
(17) + 2% + MIN(1%, MAX(0, 85% - (17))*0.1)	NA	79.81%	
19. Contribution Required to Reach Max %:			
(18)*[(1)+(12)]-(2)	NA	\$248,787	
20. 412(b) Offset	NA	150,856	
21. Preliminary Target Contribution:		105 007	
MAX(0,(19) – (20)) w/ interest	NA	105,697	
22. OBRA '87 AFC from above	NA	105 607	
23. Maximum Target Contribution: MAX((21),(22))	NA	105,697	
Minimum Required Contribution	Old Law	New Law	
24. 412(b) Changes w/ Interest	\$163,679	\$163,679	
25. Additional Funding Charge (EOY): MIN ((16),			
23)), not less than OBRA '87			
AFC if optional rule elected	0	105,697	
26. Credit Balance w/ Interest	\$616,766	616,766	
27. Minimum Contribution: MAX			
[(24) + (25) - (26)],0	0	0	

MR. ERIC J. KLIEBER: On your delaying lump sums to the beginning of the new year, presumably you're holding a liability for those lump sums. So all you're really delaying is the loss assuming that the assumptions that you're paying lump sums produce a higher liability. That may be small particularly if you're using GATT rates. If you have a liquidity shortfall and the employer doesn't pay it and in the following year the number of employees or participants falls under 100, are you required to make the 100%? Are you subject to the 100% excise tax in that case or are you deemed cured?

MR. CASSIDY: Let me make a point. I didn't mention earlier, but the liquidity requirement as you mentioned is only for employers with 100 or more employees.

If you flip back and forth I would think that it would depend on the plan year that you're in. If you're subject to it in that plan year, you're subject to it, and I don't think by flipping out the next year you're cured of it in that year, but I'm not exactly sure.

MR. FORBUSH: If you have an underfunded plan you have to be careful, too. There's some leveraging that goes on when you pay lump sums. So if you have let's say assets of 70 and liabilities of 100 and you pay out lump sums of 20, now, you go from 70% to 50 over 80 which is, what, 62%? See you're worsening your funded percentage even if your assets and liabilities that you're subtracting are the same.

MR. MARVIN LEE STOKES: Is there any reason for the semantics; you call it "the new deficit reduction contribution" as opposed to calling it "the additional funding charge"? I'm just trying to keep those names straight in Table 3.

MR. FORBUSH: The additional funding charge is the difference between the deficit reduction contribution and your regular funding contribution. So that's the sliding piece in the final contribution.

MR. STOKES: One or two other questions. Is the liquidity requirement the 100 participant count? Is that in a controlled group?

MR. CASSIDY: Yes, it is similar exactly to the other requirements

MR. STOKES: Could you give any examples? I've gone through some calculations. The 90% full funding limit does apply. You'd be surprised, but you are exactly right. You have to check your assumptions as, liberal as they may be, against what the current liability is. Well, what parameters can you say make the elections under the additional funding charge better than just funding—you know calculating the difference in the assumptions and in doing the new piece? In going back and having to carry forward the old. In most cases I looked at, there was no benefit. I just couldn't find any cases that would do that.

MR. FORBUSH: In that situation all those amortizations are offsetting the old law deficit reduction contribution. Under the old law, they have zero. Under the new law, it's nonzero because they actually have actuarial gains mostly because they've been downsizing. Under the new law, the offsets are small. Under the old law, the offsets are large. That's your situation where it helps to do the transition, and you can keep the old law calculation.

MR. CASSIDY: I'd just like to make one other point. In terms of the transition, I guess there was discussion at our firm, about how when that runs out in 2001or 2002, you're going to hop up to a much larger contribution at that point. If you explain that to employers they may say, "Well, let's just fund some more now." Why have it come up like that?

MR. CUDDIHY: I think one of the things of which we have to be careful with our clients is our guidance through this. You get into human resources policies, for example, in addition to the funding perhaps. When you get into the PBGC notification, I'd be interested in knowing how willing companies are to get into the notification. It's so new it's hard to tell, but we've had one client that really went to a fair amount of work to make sure they didn't. Fortunately, they could do some things for last year that avoided the notification. The last thing they'd want to do would be to go to their hourly people and have to put a notice out that says, according to the PBGC, the plan is underfunded. And that's a very serious issue with some people. I'd be interested in hearing anyone else's experience with that. It may turn out that as time goes on, these notices get posted in the kitchen in the different companies, and it's not a big deal. My personal experience so far is that it's a pretty serious issue for some clients. Has anyone else run into this?

MR. JAMES A. HUGHES: I've had three clients, two that actually do have a posting requirement, one that came very close, and we discussed it. And none of them was really willing to put in additional money to get rid of the posting requirement. They weren't really happy about it, but they felt that they could deal with it by putting in an additional explanation of why this posting notice has come about, and they were going to focus on things like their credit balance and how far ahead they were of the required minimum and just pass it off as a law change.

MR. KLIEBER: It has to do with how far you can go in changing the notice without incurring the wrath of the PBGC. Again, like the previous speaker noted, you can blunt the impact of the notice considerably by explaining the circumstances. Many clients are reluctant to do that because they're afraid that the PBGC will say that their explanation waters down the notice, and therefore, the notice is invalid. That has been the biggest issue that we've seen.

MR. STEPHEN E. BAIRD: I guess I just saw the opposite side of that, Gerry, with one big client. It's a conglomerate that's done in several different offices and has over 100 small hourly plans, and they were very interested in avoiding the notice on each and every plan.

MR. CUDDIHY: On every one? The one I was talking about would have been out of it the next year, but they were worried about what the notice would look like. By the way, this was sort of a silly situation. The notice would have been given out after the deficiency was funded, so it's not going to be a problem going forward, but, nonetheless, you're stuck with the notice.

MR. WILLIAM N. KUENDIG II: My experience has been that it's a small sample so you can't generalize I suppose, but for U.S.-based companies, a couple of them have been willing to step up and make the added contributions, but the foreign-owned, particularly the Japanese-owned companies, are less likely to go to management overseas and say they need more cash.

MR. CUDDIHY: This whole issue raises something that's a little bit different for us. You're getting into client's human resources policies which is not classical actuarial work. As you think about the effects of it, it's not a financial decision. You're getting into HR issues and so it just changes the nature of our work a little bit. I think another issue is we see we can add value and I think you alluded to it, Dan, in some of the different scenarios you ran out. It's a wonderful opportunity to help clients with financial modeling. The sophisticated tools that are out now projecting asset mixes and putting probablistic assessments on the different scenarios that come out are just wonderful for this environment. This is still fairly new, but if anyone has actually done some work with that or has any insights to offer to us or questions to ask we'd be delighted to hear them. The folks who are going to be on the borderline are really in serious trouble. You have to get a handle on it. If you're in really in good shape, you're fine, but the folks who are just on that margin may want to say, "Well, if I change my investment philosophy what does that do to the odds of kicking in this additional contribution." You have wonderful opportunities to do some meaningful work for them and give them great advice. Any others?

MR. MICHAEL J. HAYES: I was involved in one situation where it wasn't asset/liability modeling. It was just some deterministic liability modeling for a client that was close. You get into the sensitivity analysis that they're always interested in-we say, "Here's what we think's going to happen," but what happens if this assumption turns out slightly differently. Because of the cliff effect of what's happening here I was thinking maybe there is opportunity, but I think our ability to speak definitively at the end of the day is somewhat impaired because you end up telling your client, well, in my case, it could be a \$120 million contribution or it could be \$15 million. The client's reaction to that was, "It's like bungee jumping and now you're telling me that the ground is moving up and down." It's interesting to think of it as an opportunity, but it's pretty fraught with trouble as well.

MR. CUDDIHY: Right. On the other hand, I think it's good information to let them know at a minimum that the ground is moving.

MR. S. JOHN SLOWATA: Yes, I think one of the things we should be doing is letting people know that the ground is moving or that there are ways of keeping the ground from moving. We're dealing here with a liability that's linked to 30-year Treasuries, and the investment policy can very much influence how close your asset values are going to track your liabilities. Now one of the things that happened in the example we just saw was that the liabilities were going up much faster than the assets were. One of the things that caused that is a great deal of mismatch between the duration of the liabilities and the duration of the assets or the types of investments that the managers are making. So I think it's an opportunity for us to give our client some advice about the risk they may be taking with their particular portfolio.

MR. FORBUSH: Thank you. I think this is a natural to have discussions where they are not occurring, where the actuarial is really not touching too much on the investment side. There really is going to be a need to bring them together here to have that discussion. You're not going to be able to do it independently.

MR. MARTIN S. FOX: I know nothing about asset management, and the last comment kind of confuses me and maybe somebody can explain it. When you say that we should match the liabilities with the asset growth, they sort of match with the 30-year Treasury.

But it seems to me, under one of the scenarios, when you say had your assets growing with 30-year Treasuries, that's an event that's already occurred, and you may or may not be at the point that the 30-year Treasuries are right now for measuring liabilities. I mean to say liabilities are sort of prospective, and you're measuring that against something that's retrospective. How do you match it like that? I don't quite see it.

MR. SLOWATA: I wasn't suggesting that the matching was necessarily a good idea. Only that there's a risk inherent in maintaining a mismatch. If you have a liability that's based on 30 year treasuries or something like that, that liability is going to take very broad swings in relation to interest rate changes. If you have an asset portfolio that's let say invested in fixed income securities with a duration of only three or four years, those assets are not going to swing as widely or, if they're invested in equities, may not even swing in the same direction that the liability is swinging. I'm simply suggesting that the client be aware that this kind of thing can occur, that you could have a liability that is a very long duration liability and can swing very widely where the assets are not tracking it all. And in this situation, if you're in an underfunded situation or a deficit reduction situation, the client should be aware that this is something that could be avoided or could be changed by changing investment policies.

MR. FOX: Most clients want to find the investment that's going to give them the highest return at any time, and they don't really care about the fact that the liabilities are going to swing up and down. It's what drives you. In other words, do you say that I have to get a certain rate of return because the liabilities are X, or do I really want to create the scenario because I'm getting the best return possible. And it seems to me that most people would want to get the best return possible at the reasonable amount of safety let's say. So I just think we're stuck. I think the fact that the liabilities are bouncing up and down shows the ridiculousness of how we have to measure all these things.

MR. FORBUSH: I think what may be a key element is, what is safety? Safety for the organization may be not being kicked into a minimum funding contribution. Then I think some asset strategies are going to be better than others. I certainly think clients whose goal is not, for example, to get the best return possible, but to do the most they can to stay fully funded, will have a different investment strategy than going after the top dollar. And I think the comments perhaps point to the fact that we have to make them aware of the consequences of what they're doing.

MR. CASSIDY: If they want the highest return, fine, but there's a consequence to that, which is that you can have a deficit reduction situation bouncing on.

MR. MATTHEW S. EASLEY: How much can we, for sponsor convenience, adjust the investment of the assets? I think there is an overriding responsibility of the plan participants in selection of the management of assets and how much can the convenience of the sponsor, if at all, be factored into the equation as you manage the assets and liabilities?

MR. JEREMY GOLD: I've been in asset/liability management and pension plans for a good long time, and I've heard a number of things that troubled me in this discussion. First, I have a point on a fiduciary issue. It seems to me that at least in this instance the suggestion is that what is the convenient thing for the sponsor happens to be better asset/liability matching. I would have a hard time faulting a fiduciary who preserved an

asset/liability ratio on behalf of participants as well. In other words, I see a coincidence there.

With respect to the issue of can you hedge, or whether you should hedge, or whether the liabilities are jumping around in a silly way is determined by the law, there's two or three contradictory truths in there as I see them. The first is that the true liabilities jump around an awful lot because they should be measured at market rates. There's no other way to do it, and since a number of you are in insurance companies, I'm sure that you really would not run an insurance company in which you had a great mismatch. You have much too much leverage to do that. The fact that a pension plan is attached to a corporation implies that you don't have the same responsibility. Some people may feel that way and, therefore, pursue the greatest return. I'm not convinced that the balancing that occurs in insurance companies shouldn't apply more closely in pension plans.

Finally, we have this silly thing that you all call the current liability, which I call the dumb liability, because it has no market counterpart and we did it to ourselves. We refuse to allow anyone to dictate a rate to us, so we insisted on an average rate and we insisted on a range of rates, 90-110%. They're now nickeling and dimeing or really pennying us down to a 105%. Every time we insist on some tool that takes us away from the market, we make it harder to achieve decent asset/liability matching. It seems to me, if you assume a Treasury bond has a duration of ten, the current liability for the next year seems to be already 60% determined, the 3, 2, and 1 component. And, therefore, the current liability is going to have a duration of four for the next year, the 40% applied to the ten-year duration. So, like it or not, that four year may be right for the wrong reasons, and you will get a discount annuity as soon as you roll out that four-year-old piece. You cannot buy a current liability bond for more than a year, and when you buy it for a year, you guarantee yourself a cliff at the end. The lesson is don't ask the government for things that you think you want until you know what you want.

MR. BARTON G. FLEMING: I'm not currently with anybody, but I don't really see this as necessarily being an insolvable problem. This is solved every single day throughout Europe, throughout the world by transnational companies. This is identical to the problem of hedging against future changes in exchange rates. And the same techniques that are used in hedging against exchange rates could be used. I'm not suggesting that they be put into the pension fund, but if there is a change in future interest rates that is going to cause you to suddenly have a large cash-flow requirement into the pension plan, there is no reason you can't buy, separately from the pension plan, the appropriate futures options to pay for that if it occurs. I realize there could be a cost, but for a \$50,000 cost, you can hedge against several hundred million dollars of cash-flow loss. The problem is the education of actuaries in this area; I certainly never saw it on the exams. I saw it in my MBA finance courses. But it really isn't a problem if you know what to do and what the solutions are. Maybe as an asset manager you might have some insights.

MR. GOLD: What you just said is absolutely true as a general rule until you start defining nonmarket liabilities. Suppose you had to hedge the French franc based on some average of the French franc. That's the problem we have with this dumb liability.

MR. CASSIDY: I think this discussion does highlight though how our rules are changing. When you talk about dumb liability or you talk about looking at futures, certainly your

dialogue is changing. If your dialogue is not changing with your clients over this issue, you're doing something wrong even though I'm not pretending we know all the answers.

MR. SLOWATA: The discussion is that we have a situation something similar to where the accounting is driving the business decisions, and I think that's a big mistake. The reason you cover purchased liabilities in insurance companies with fixed-income investments is try to minimize the mismatch; you reduce volatility. In a pension plan, if you defined the earnings or if you changed the way the pension liability impacts the books, you then change the business decisions with regard to the assets that you use to cover those liabilities. This is a problem with legislation and regulation because I think in the long run we all think we're better off with common stock as the basis for covering these types of liabilities. These types of situations drive you into other investment strategies that I think are counterproductive and are aimed purely at reducing volatility, which is introduced by the regulators.

MR. CUDDIHY: Somebody spoke earlier about the fiduciary aspects changing investment policy for the convenience of the sponsor. I wouldn't think of that in the context of convenience of the sponsor. But it seems to me that the pension trust and the sponsor are closely linked. You require a healthy sponsor to have an ongoing pension trust, and I would link the employer managing its future business and what those contributions should be as having a direct impact on the health of the pension trust. I don't know whether anyone else has run into that or has an opinion, but I wouldn't view the pension trust in isolation and subject the sponsor to any kind of whipsaw effect on contributions, some of which could be quite devastating.

MR. HUGHES: As I understood the question on fiduciary responsibility, is it acceptable to change your asset investment simply for the reason of avoiding posting a notice? That might not be appropriate, but when you look behind that, what you're doing is protecting the plan participants on termination. If you look at it that way, I think there isn't really a fiduciary responsibility issue.

MR.CASSIDY: In some of the assignments in our office where people are looking at different asset mixes, they are looking at what the likely outcomes are, whether it's for a notice or additional contribution, at least weighing those into the equation. I don't say they're making an asset decision specifically to avoid a notice. Any others?

MR. BARRY L. SHEMIN: I have just one more comment on the question of asset/liability matching. It seems to me one of the complexities here is that, as the plan status changes, there's a change in who's bearing the risk. For a very well-funded plan, participants don't have much to worry about, and it's entirely appropriate to consider most of the sponsor's interest in being healthy in the long run by achieving maximum return. As the funded status of the plan becomes worse, then the going concern theory starts to get a little weaker and participants might need to be worried or their representatives might need to be worried about whether the plan would no longer be a going concern. And I think public policy is actually reflecting this in these regulations. Forget about the way it's implemented technically. There has been comments on that that may be all wet, but I think the general principle that essentially says, You might have to kick up some nondiscretionary cash when your funded status goes down is essentially a reflection of the fact that the participants are now more at risk. This is to the extent that then leads employers to minimize the cash-flow risk by adopting a more conservative strategy. It's

not a totally irrational result, because it then gives participants more protection by reducing volatility. I'm sure the employer may give up more return, but that's a consequence of not being all that well-funded.

I would also comment that I think at least some of these tests involve the use of actuarial asset values that I think do involve some degree of discretion, and I think that would need to be factored into the asset/liability evaluation and perhaps could lead to some flexibility in enabling a matching of assets/liabilities to be achieved.