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PENSION PLAN DESIGN

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- o How are pension actuaries modifying plans to conform to TRA 86 and OBRA 87?
- o What is the impact of the new integration regulations?
- o Are defined benefit plans "dead?"
- o What is the current status of cash balance plans?

MR. ERIC P. LOFGREN: I'd like to introduce the panel: Ben Haas, a principal at TPF&C; Sheldon Gamzon, a principal at Mercer Meidinger Hansen; and William Torrie, a partner at Kwasha Lipton.

Now let me outline what we're going to be talking about. First, Sheldon is going to talk about defined contribution (DC) versus defined benefit (DB) plans, how that discussion has come back up in view of the new regulations (Tax Reform Act), career average versus final average, the trade-off between the amount of integration and early retirement subsidies, and intergenerational issues that floating covered compensation can bring to bear in a plan design. We're going to try to talk about practical plan design rather than just recite what the regulations say. Ben will be going on next and he will be contrasting flat dollar excess integration versus floating covered compensation and discussing varying the normal retirement age, the use of nonqualified plans, and contributory plans. And finally, Bill will be talking primarily about cash balance plans.

If you can have one vote on how it's going with the majority of your clients, who among us has changed the plans to comply with integration and other rules, and who among us has clients who are primarily still waiting? So for the first group, by a raise of hands, whose clients have primarily complied with these laws? Maybe about a tenth, an eighth of the room. Whose clients are still waiting, on the whole? Very interesting. That's about what I would have expected.

Before I turn it over there is one last item. Jim Holland spoke at the Conference of Actuaries meeting recently and I thought he was unusually forthright and helpful and I would like to thank him for that. I thought I'd share some brief notes on what he said at that meeting, just to bring us all up to speed. Jim said that, optimistically, 401(a)(4) regulations would occur in December. The pessimistic version would of course be sometime in 1990. He said that we could probably expect the 401(a)(4) regulations to contain some integration odds and ends. In particular, if you have a participant who has more than 35 years within the plan, you'll be able to do some type of project prorated on the integration for those individuals, instead of confining integration to just the first 35 years, a limited exception. Jim went on to say that we could expect there to be a new transition rule on integration regarding the updating of December 31, 1988 accruals for final average pay under the prior formula. But there will be a cost for this in the amount of integration you could use for the new formula on a future service basis going forward. It would be some type of a sliding scale cost, so that if you had a pure excess plan, the cost would be higher than if there had been a minor amount of integration in the past. Jim seemed adamant against any panaceas for primary insurance amount (PIA) offset plans. Jim forecast that the IRS would not allow the use of an offset that was the lesser of a PIA or a covered compensation offset. We can look forward to an extension through 1990 for Model Amendment Three, which you might recall allowed a plan to freeze all accruals at December 31, 1988, and then implement a new plan retroactively. The prior integration formula may end up being allowed for all of 1989. Expect an extension of the 401(b) amendment period to the end of the 1991 plan year; not fiscal, not tax, but plan year. Look for an extra year or more on the 401(a)(26) transition rules. Jim spoke briefly about the fact that the formal normal retirement age may not be set at the Social Security retirement age. However, for setting the benefit formula, you can use the Social Security retirement age as long as you're

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careful about such things as full vesting at the normal retirement age. If you do use the triple Social Security retirement age for your benefit formula, depending on year of birth, you have three 401(a)(26) groups. In short, get the semantics of your plan right.

Jim addressed the question on cash balance plans saying that they have to be tested by DB rules. He mentioned that he didn't think using a cost of living feature was a means to prove cash balance integration. He had his doubts whether an integrated accrual under a cash balance plan could integrate when accumulated to 65. He had a reference to an alternative of qualifying the integration on 81-202. I confess that I didn't quite follow, that being the comparability rule. Hopefully, the IRS would eventually tell us exactly what can be done with these plans.

Going to the interest rate for current liability, in the alternative Omnibus Budget Reconciliation Act (OBRA) 87 full-funding calculation, Jim said he thought the odds were better than 90% that the IRS would permit current liability interest rates for 1989 to be the same as 1988 (which was anywhere in the range with a floor of 8%). He said it was very possible that 1990 would have a similar rule, and that when the rule for 1989 comes out, look carefully for wording at the end of it along the lines of "until further notice." If you see wording like that, that means that it keeps going until 1990 and beyond, until they put something else out. The definition of the benefits to be included in the definition of current liability will be in a proposed regulation. That means there will be a long wait. The 1989 Schedule B will have three pages.

Finally, consider a situation where a plan in 1988 was in OBRA full funding but was not in regular full funding. And so you missed the contribution that would have occurred under the prior rules. And then you come to 1989: What do you do? How do you do your amortization bases? How do you do your Schedule B? How do you do your minimum contribution? Jim said the answer he expects will be to use a ten-year base for the missed minimum contribution, bringing other bases forward. Personally, I thought this was a reasonable response in that there's a gap in the statute. Clearly something had to be amortized, but there is no real effective guidance, only something about average working lifetime in the Committee reports, but nothing really effective. Jim had to do something, otherwise we couldn't go forward, so he picked ten years. That's what I noted at the Conference meeting. There may be other things, though, that may be of importance to some of you that I didn't catch.

MR. SHELDON A. GAMZON: The last time I spoke at a gathering like this was at the 1986 CAPP meeting in San Antonio. The session was a panel discussion on employee benefit provisions of the Tax Reform Act (TRA) of 1986. Unfortunately for the three speakers, the law was rewritten the evening before, and I found myself rewriting my speech within 15 minutes before I was scheduled to go on. Well, it's *deja vu*; here we are three years later discussing exactly the same subject and dreading what the IRS will come up with when they issue the 401(a)(4) Regulations. As Eric mentioned, Ben Haas and I each have chosen a few issues on the subject of Social Security integration, and we are going to relate some findings, as well as what our clients are doing in these areas. The four areas I will be discussing are as follows: DC versus DB integration, career average versus final pay integration, preservation of early retirement subsidies and some generational differences in offset formulas. Let's start first with final pay versus DC plan integration. Let's briefly review what the integration rules were prior to TRA 1986. For this purpose, I'm going to ignore Social Security offset plans because based on Eric's comments and Jim Holland's comments, they certainly still remain in jeopardy. Let's focus on excess plans. Generally under the prior integration rules a noncontributory five-year final pay plan was permitted to have a spread of 1% per year of service. If the maximum period of service was less than 37.5 years, the maximum integration spread was allowed to be increased proportionately. As long as the break point was less than or equal to covered compensation, as defined in Rev. Rul. 71-446, no reduction in integration spread was required. On the other hand, DC plans were permitted a maximum spread of 5.7% per year in the contribution. That percentage was indexed to the OASDI percentage, and the break point could be anything less than or equal to the Social Security Wage Base without reducing the integration spread. To illustrate the degree of integration allowed in these two plans, I constructed a simple example of a two-employee company. Each of the two-employees is newly hired at age 35, one earning \$75,000 and one earning \$25,000.

The formulas that we will choose have to target 50% of pay for the higher-paid employee and the objective is to try to find out how little of the benefit we could provide to the lower-paid employee, or effectively, how well could we integrate this plan. In order to produce a 50% benefit in a DC approach for the \$75,000-a-year employee, a formula of 8.4%/14.1% around the wage base

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would have been set. If you study exactly the same formula for the \$25,000-a-year employee, you would have given the \$25,000-a-year employee a 38.5% of final pay benefit, which illustrates the integration that this kind of program was going to allow. If, however, we chose a DB final pay plan, with a 1.25% spread, the 1.25 comes from the fact that these two employees would only be able to get 30 years at retirement, not 37.5, and consequently you could raise the integration spread to 1.25%. You could drop the benefit for the lower-paid employee down to 31.5% of pay, which means in this example, the final pay plan had 60% more integration allowed than the DC plan under the old rules. Now for all of you who think we've biased this by using a 1.25%, we redid it using a 1% spread in the final pay plan. And sure enough, we have to provide a larger benefit to the \$25,000-a-year employee, but still there is more integration essentially allowed in the final pay version than in the DC version. And I think this is probably what everyone understood. Under the old integration rules, final pay plans had a bit more integration than DC plans would allow. Not a heck of a lot, but somewhat more.

Now, let's look at the integration rules after TRA 86. The integration spread in the final pay plan is reduced to .75% per year or the base percentage, if less. In addition, the integration spread cannot be extended over a period of more than 35 years. This respectively reduced the maximum integration by 25% for the final pay plan and also eliminated that integration boost you got if the employee's career was going to be less than 37.5 years. As a trade-off, the IRS graciously gave us three-year final pay without any penalty, as opposed to the prior 10% reduction in integration that you had using 71-446. Now, basically, there were no material changes in the DC plan integration rules aside from the imposition of a base percentage cap on the integration spread. If we now repeat the same example that we looked at before, if we want to produce 50% of pay for the \$75,000-a-year employee in a DC plan, we said we would have to provide 38.5% for the lower paid employee. But now suddenly, we'd have to provide 39.4% under the final pay version. What this seems to indicate is that the bias that the old integration rules had for DB plans has disappeared. And, in fact, in the sample example, the DC plans have a bit of an advantage. Not very much, but somewhat of an advantage. Now, we repeated the same exercise with a 50-year-old employee. Basically, we discovered that the results are not terribly different if the entry age of the employees is raised. We didn't bias these results by choosing young employees. Still, DC plans are now probably the better integration tool than DB plans. Now, are these results surprising? Well, I think we all know that DC plans were not hit at all by the integration rules while DB plans did take a hit. But I was frankly surprised to discover that DB plans were actually now at a disadvantage, relative to the situation before Tax Reform when they were at a distinct advantage.

What are our clients doing? Well, in all honesty, my clients will integrate the DB plans. While they understand the fact that they lost a fair amount of integration in the TRA rules, they remained reluctant to institute the DC plan as the prime integration engine. One successful occasion I can relate involves an employer who had a 15% profit sharing plan and a final pay offset version. The client was guided by the fact that offset plans were probably not going to survive these integration rules, and he realized that he had to overhaul the defined plan. When we did our analysis we concluded that if we went ahead and instituted a nonintegrated DB plan and essentially reduced the benefits for the higher-paid employee by making it not integrated, and then shifted a 5.7% kicker into the profit sharing plan so it became 15%/20.7% over the wage base, we were actually able to reproduce the replacement ratios that the prior integration rules had. So that's something that might be worthwhile looking at. If you actually have a situation where you have a pure profit sharing, no 401(k) provisions, no matches (which will make life very complicated trying to make that into an integrated plan), I think that there is some opportunity to investigate shifting from an integrated DB plan to an integrated DC plan. Another issue I think clients and consultants have to explore is the viability of floor plans. As you know, floor plans basically operated around a DC plan, driving the benefits. To the extent that the DC benefits are not large enough to meet the replacement ratio targets, you have the final pay minimum in another plan. Floor plans, however, basically take away the integration that you have in the DC plans and shift you back into a DB plan mode. So to the extent that you're investigating a floor plan, be very careful about how much of a kicker you've given the low-paid employee by essentially reducing the integration down to DB levels.

Let's now touch on final pay versus career average plan integration. Once again, we've done the rules for final pay plans; let's look at the rules for career average plans prior to TRA 86. As you know, career average had a maximum annual 1.4% spread, versus 1% in the final pay plan. The career average break point could be anywhere from the wage base on down, with a final pay

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break point being covered compensation. By the way, just as an aside, career average plans under the 71-446 had a very interesting liberalization in 71-446. Career average plans can be automatically updated based on "generally recognized cost of living indices." You could have started out with a career average plan with a 1.4% spread and as the employee ages, if CPI were going up at a rate of 4% a year, if that employee were 18 years into the future, you'd now have doubled the integration spread from 1.4-2.8. This was a provision that not too many people noticed in 71-446, but it is out. Just to illustrate, doing the same exercise as we did before, we now show four employees, each hired at age 25 with salaries of \$25,000, \$40,000, \$50,000 and \$75,000. Once again, the target is to produce 50% of pay for the high-paid guy, and essentially the lowest benefit you can for everybody else. Prior to TRA 86, a career average plan of 2.6%/4% around the wage base would produce 50% of pay for the highest-paid employee and produce levels of 39% for the lowest-paid employee, 40.8% for the \$40,000-a-year employee and 44.4% for the \$50,000-a-year employee. Compare this with a final pay plan, which will provide about 30.7% of pay for the lowest-paid employee, and 41.3 and 44.9. Under the old rules, career average plans were slightly more effective at integrating for anybody but the lowest-paid employees. If you had a group of \$25,000-a-year or lower-paid employees, career average plans would probably not be the more effective way of integrating pension plans. But as your salaries increase, career average plans actually had a bit of an advantage as compared with final pay plans.

After TRA 86 career average plans basically had identical rules as final pay plans. Same spread, same break points. Not much difference. Now, if we now do the same exercise, career average plans have lost virtually all their integration for the \$40,000-a-year and \$50,000-a-year employees. Essentially, to provide 50% of pay for the highest-paid employee, you'd have to provide about 47% of pay for the \$40,000-a-year employee. There's virtually no integration at all in career average plans. On the other hand, for the lowest-paid employee, career average plans actually lost less integration than final pay plans lost. So, I think the message here might be that while career average plans are an effective budgeting device, one would have to seriously study how much integration you give away by maintaining a career average plan in a post-TRA 86 world.

The third subject that we want to discuss is maintenance of early retirement subsidies. Now this speech had a lot more meaning before revenue notice 89-70 was issued. A little thunder was taken away by 89-70. But prior to 89-70, the integration regulations significantly reduced the early retirement subsidies you'd be allowed in integrated pension plans in two ways. First of all by requiring that the Social Security normal retirement age be used as the basis for reducing the integration spread. And also, the early retirement factors were far more severe under the proposed regulations. Well, relief came in the form of Revenue Notice 89-70 by eliminating the second of those two factors. We're basically back now to one 15th for the first five years, one 30th for the next five years, and actuarially back at age 55. But the starting point again is the Social Security normal retirement age.

For example, Plan A decides that they're willing to live with the early retirement reductions that the IRS specifies in Notice 89-70. Plan B wants a 4% reduction from age 62; they're not comfortable with the IRS factors. Plan A, of course, can keep their spread at .75%. The Plan B maximum spread prior to the early retirement factor decreases all the way down to about 43.8% at age 55. And this is the only alternative employers have. Ben is going to discuss in some more detail, using multiple normal retirement ages as the point (from which you stop reducing this one 15th), which is going to have the effect of keeping this spread for your younger employees but having a greater spread for your older employees. An another alternative is to actually reduce the spread to 43.8%, reduce the benefits for the higher-paid employees and then provide additional benefits via nonqualified plans. The question is, what is a higher-paid employee? The Department of Labor (DOL) and IRS don't agree on the definition. And it is likely that the kinds of employees that you're going have to provide for in a nonqualified plan are not going to be the kinds of employees that the DOL is comfortable with, without funding those plans. This is basically the situation for Plan B, which has problems at every age below 62. And one of the things that we've explored with clients, and actually a few clients have adopted, is to institute a nonqualified plan but do it in a slightly different fashion.

Age 55 is a problem because the spread is .36 in the plan while the IRS will only like you to have .316. But what would happen if I deferred this individual's pension for two years? Well then I could get up to a .375 spread, when I'm only at .36. So if I deferred the benefit in a qualified plan for some period of time, I could get around these integration problems. Until that point in time, of course, I had to pay the benefit, the same benefit out of the nonqualified plan. This is going to

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have the same problem we discussed before. This is going to include in nonqualified plans both highly compensated and nonhighly compensated employees, which means under the DOL rules you have to fund that plan and be subject to basically all of Title One of ERISA. Now, most of that is not really a problem. The issue is the tax consequences. If you have a funded nonqualified plan, you understand, as soon as the contribution is made and vested to the employee, it becomes taxable. Well, the first issue is how do you determine what the taxable contribution is? Secondly, since this benefit is only payable if this employee retires at 55, what happens if he stays on until 57? We didn't need that contribution. Is that benefit, in fact, vested at all? He, in fact, forfeits that contribution by staying on in service beyond age 57. Is that a vested benefit at all? Well, let's first take care of the first question; I would argue that you follow conventional actuarial techniques to figure out what the taxable contribution is. You project the after-tax benefit, and apply all your decrements, survivorship, interest and determine what the contribution is, and that would in theory become the taxable amount. However, most attorneys that we've spoken to in this area feel that since there is a significant risk of forfeiture in each year's contribution, that contribution, in fact, is not really vested. And, therefore, no taxes have to be paid on that contribution at all. Now, this is something, obviously, attorneys have to decide; I think you will have to consult with your attorneys before you jump into this. But it is a viable solution to maintaining the .75% or whatever the equivalent version was under tax reform without forfeiting your early retirement subsidies.

The last subject I want to discuss is intergenerational subsidies.

Until now we have avoided discussing Social Security offset plans. The practical aspects of this law are that most employers who had integrated plans had offset plans before. And to the extent that you want to offer a plan with a covered compensation offset or excess plans, there's really no difference. If an employer wanted to try to duplicate or replicate the benefits in the offset plan, the PIA offset plan, the first question that comes up is as follows: who do you try to replicate the benefits for? Do you attempt to replicate the benefits for the people who are going to retire very soon, age 65, or do you try to replicate the benefits all the way back to age 25? And what happens as you vary pay increase assumptions? Those are the issues we want to discuss.

In one client's plan, the prior integrated plan was 1.25% of PIA that was the offset. In order to replicate the benefits for the 25-year-old employee, we would have to produce .44% of covered compensation as the annual offset. As the target moves, people retiring in the near future end up with some very, very meaningful increases that probably were never intended. For the person retiring at age 65, as opposed to receiving an offset of \$9.71 per year of service, the offset actually reduces by 50% down to \$6.22 per year of service per month. If you reverse this situation and try to match the benefits with the offsets of the age 65 employee, then the age 25 employee is going to see a significant cutback in his benefit. One of the questions one has to deal with when you try to match PIA offset plans with covered compensation offset plans is, Who is the target the employer is trying to match? Is it the 25 year old? Is it the 65 year old? If you targeted the 25 year old, the older employees get huge windfalls. And they're huge. And if you target the 65 year old, the 25 year old actually suffers a cutback in his benefit.

If you now do the same exercise, but removing the projected wage bases and projected salary increases, if we assume no salary inflation whatsoever, everything goes haywire. While we use the same .44% of covered compensation we're now suddenly offsetting larger amounts for the 25 year old than we were offsetting before. Only when we get to the employees from age 60 do we still have some windfall, but the windfall is somewhat smaller now. But the other employees actually lose. Now, no one would argue that this would become the basis on which you do your projections to try to match peoples' benefits. The problem is, for all employers that issue benefit statements, this is precisely what you show to your employees in their benefit statements. So while you may have designed your plan perfectly, the 25 year old actually ends up with exactly the same benefit he was to get before; when you issue next year's benefit statement, this employee is actually going to see a benefit cutback of \$8 per month per year of service.

Are there solutions to that? There are solutions, but frankly none of them are very good. One solution is to actually prepare your benefit statements projecting salaries and wage bases. Then discount the benefit back for some sort of assumed inflation rate. That is going to be almost impossible to communicate to employees, and it just won't work in a benefit statement format. Alternatively, (this just basically compares the offsets), the old plan's projected salaries (at inflation) would have \$5.28 as an offset while the new plan is \$3.50 per year of service, and in the

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dynamic environment, the employee actually experiences a \$178 per year of service increase in benefits. But in a static environment, it shows a \$27 per year of service decrease in benefits! So everything worked fine, except that when we tried to present it on a benefit statement, we actually ended up with an apparent cutback.

Now, one of the alternatives that we've looked at, and it actually might work, is to calculate a projected covered compensation as the current wage base multiplied by the ratio of the projected covered compensation to what the projected wage base might be. So if you do your projections, we come up with a wage base of \$170,000 at retirement for this employee, a covered compensation of \$88,000 -- the ratio is about 50% (51%). If we then use covered compensation in the formulas as 51% of the current wage basis of \$48,000, (i.e., use a \$24,624 wage base), you end up with a new plan offset of \$98 as compared with \$158 old plan offset. You are getting what you design to provide. You wanted to provide a higher benefit to the employee by changing the offset arrangement, and this actually demonstrates it. I don't know too many employees who would even be able to tell you what the projected wage base is and what the projected covered compensation is, let alone know if \$24,000 is a good number at all. This is a solution to the problem. It probably is not the only solution, but it is one I think every one of us here is going to have to deal with if they issue benefit statements. There is no way to design a formula properly, and then in the following year's benefit statements deliver the right message to employees.

MR. V. BENJAMIN HAAS: As Sheldon mentioned, he and I picked out a number of topics that we thought were particularly relevant, after the new integration rules of TRA 86. I would like to focus on four issues. One is the impact of alternative integration levels in step rate plans. Second is the viability of using Social Security normal retirement age as the definition of normal retirement age in the pension plan. Third is contributory plans. Finally, I will comment briefly on what we see going on in terms of nonqualified supplements. I tried to, in each case, pick out a case example that illustrates the issues. The one exception is contributory plans where I'm really hoping that someone in the audience can come up with a brilliant solution for my one contributory plan.

I'm still trying to figure out what to do after tax reform. In terms of the alternative integration rules, I really focused on three alternatives. One is the use of individual covered compensation as largely driven by the TRA regulations. Second is the use of a uniform integration level for all employees equal to covered compensation for someone who is currently at Social Security retirement age. The third is the use of some sort of flat dollar alternative, whether it is a percentage of the wage base or some other flat dollar amount. I've tried to recap what I've seen in looking at the issues with clients, some of the issues associated with using these alternatives.

Clearly from a compliance standpoint use of individual covered compensation is the most straightforward approach. You don't have to deal with some of the rules that you do in using alternative uniform dollar amounts. In particular as we look at some examples, there are some issues that we may have to deal with in a dynamic plan setting that need to be taken into account in looking at uniform flat dollar amounts. There are also some differences in terms of impact on employees, and we will look at that in examples. By differences I mean in terms of how well the alternative plans fit the traditional offset plan that the employer probably has in place today. What issues do we deal with in terms of how the plan is going to respond to the impact of inflation and wage increases over time? And, finally, I guess one of the issues of concern to me is how do you effectively communicate these plans? Clearly one of my concerns with the use of individual covered compensation is simply the communications. How do you really explain that to employees? How do you make the communication work, whereas at the other end of the spectrum, use of some sort of flat dollar amount really tends to address that issue. From our perspective, in looking both at my own clients and talking to some of my colleagues within the firm, we're seeing a mix of these methods being used by employers in redesigning their plans, no one clear preference in terms of the integration approach. What I've done by way of illustration is simply to take a look at an actual client who currently has a traditional 50 minus 50 PIA offset pension plan. We looked for that employer at a number of different step rate plans. There are different formulas basically related to the integration level that are used in the context of the plan. For one particular employer, given the demographics of the employer, we found that these three plans produce roughly comparable costs one to another, all significantly more expensive than the current plan, and all consistent with some of the employer's underlying objectives which we won't get into here.

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One of the interesting things to look at is what happens to these different integration levels over time. The results are fairly striking. If you look at the use of individual covered compensation, simply because the mechanics of the calculation, you would typically find that individual covered compensation is going to tend to increase more slowly than salaries. Typically, you are going to see benefits that increase over time, both as a percentage of pay and in relationship to a traditional PIA offset plan, illustrating some of the intergenerational issues that Sheldon talked about. We can contrast that with the use of age 65 covered compensation, which exhibits almost exactly the opposite properties, particularly over the next several years. We are going to see age 65 covered compensation typically increasing more rapidly than salaries, so that we're going to see benefits both as a percentage of pay or in relationship to a traditional PIA plan declining over time. Look at a typical employer who is comfortable using age 65 covered compensation. More than half of his nonhighly compensated employees are earning more than 120% of \$17,000. However, the employee may find that the case is different in a fairly short period of time down the road. For example, consider a fairly typical employer for whom half of the nonhighly compensated group is currently earning more than \$25,000. Within ten years, if payroll simply increases at the same rate as the Social Security wage base, that employer will no longer pass the 120% rule. The permitted disparity would actually decline at that point in time. I think this is one of the real issues that we have to deal with in looking at these types of plans.

In this particular case we looked at how each of these alternative plan designs would compare with benefits delivered under the current PIA plan. We looked at employees at different ages who retired at different points in time. Again, one of the objectives for this employer was basically to come up with a plan design that was guaranteed pretty much to keep everyone whole. We see results that are more than 100% of current benefits in most cases. We contrast alternative ones, where we're integrating using individual covered compensation and we see a clear pattern over time of benefits that increase relative to the traditional PIA plan as employees age, whether we're looking at employees at different ages today or employees over their career. Conversely, if we look at alternative integration levels using either age 65 covered compensation or an alternative flat dollar integration level, (in this case .33 of the Social Security wage base), we find exactly the opposite pattern. For this particular employer, issues that they really focused on are communications issues, potential compliance problems down the road, and which of these patterns makes sense and which was going to work best for this employer. This employer still hasn't made a decision as to what approach makes more sense.

By the way, if we had looked at significantly different salary levels, you will fundamentally see the same patterns over time. One of the issues that Eric mentioned earlier is the possible use of Social Security normal retirement age as the definition of normal retirement age under an employer's plan. Sheldon referred to that as well. I'm not going to focus specifically on the effect of that on the ability of a plan to integrate under the early retirement provisions. Let's focus on some of the practical issues involved in actually trying to use this approach for a plan. Keep in mind that there is no blanket permission under 401(l) to use varying Social Security normal retirement ages. It is not going to be a panacea to deal with 401(l) rules. We also have a number of other rules that we know we need to deal with. It does appear, if we look at the Code Section 411(a), defining normal retirement age as the earlier of age 65 or the age defined in the employer's plan. So it does appear that there is statutory support for using a normal retirement age under an employer's plan which is greater than 65. There are a number of other requirements, irrespective of the actual normal retirement age under the plan. You still have full vesting required at age 65, provided the individual has at least five years of plan participation. Payment of deferred vested benefits generally has to begin at age 65, although it's our view that those benefits probably could be paid on a reduced basis. The age 65 benefit is still going to have to meet one of the three benefit accrual rules. Fundamentally, we don't see any of these posing a major obstacle to the use of Social Security retirement age. The bigger obstacle comes in that we probably are dealing with three separate plans for purposes of the coverage rules. In terms of the broad coverage rules, each group is presumably going to have to pass either the 70% ratio test or the average benefit test under the coverage rules. We also presumably have 401(a)(26) rules to deal with, which means this probably isn't a solution that's going to have a great deal of viability for small employers.

In the cases that we've looked at it is unlikely that the employer is going to have all three groups pass the 70% ratio test. There is usually enough of a skewing in the distribution of highly compensated and nonhighly compensated employees in terms of age, that there usually is at least one group that isn't going to pass the 70% ratio test. Here are some numbers we generated for an

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actual client who is considering use of Social Security normal retirement age as the plan definition of normal retirement age. If we look at the percentages of highly compensated and nonhighly compensated employees at each retirement age, most of the employees in both groups are concentrated at the normal retirement age of 66. The plan would actually pass the 70% ratio test for both age 65 normal retirement age and age 67 normal retirement age, but it would not pass the ratio test for the group in between. What would really be involved for this employer in passing the average benefit test? That test says: "as you look at your overall population of highly compensated and nonhighly compensated and employees, the average benefit for nonhighly compensated employees has to be at least 70% of that for the highly compensated group." In this particular case, because the average retirement age of the highly compensated group was about 66 and the average retirement age of the nonhighly compensated group was about 66.5, we found a 5% differential in benefits strictly attributable to the use of Social Security normal retirement age for this employer. As a result, we concluded they would probably have to cut back on what might otherwise have been permitted under integration rules in order to make sure that they were going to comfortably pass the average benefit test over time.

In the cases that we've looked at, we have concluded that the use of Social Security normal retirement age is not going to be an effective vehicle for getting more integration than would otherwise be permitted under 401(l) rules. We looked at the issue for employers that tend to have fairly minimally integrated plans, and employers who felt that it made sense for them to extend retirement age over time, because one of their objectives was to encourage employees to stay in the work force longer. Over the next ten years, you also see through the use of this alternative further distribution under DB plan of benefits to older employees. Those employees who are going to retire within the next ten years are those with a Social Security normal retirement age of 65, so you are not going to see much difference in retirement benefits that are being delivered during this period of time. On the other hand, most of your employees terminating before retirement are going to be those with Social Security normal retirement age 67 or 66 for whom benefits will be reduced as a result of this change. One of the other implications is that we will probably see some reduction in benefits for employees terminating from the population relative to ongoing retirees. Have any of you have really looked at Social Security normal retirement age for your clients in the context of trying to get more integration under 401(l) rules? This does not appear at this point to have been a topic of great review and debate. But it is an interesting issue, and again, I think one that really has its place, probably not in the context of providing greater integration opportunity.

For contributory plans, I will briefly review the rules that apply, since those of you who don't have contributory plans in place probably haven't spent a great deal of time on that segment of the regulations. Fundamentally, the 401(l) rules say that you have to test just the employer provided benefit. The rules go on to provide an approximation that can be used for that purpose, provided you meet a number of demographic tests. If we look at an actual example, assume that we have an employer with a step rate plan, a basic accrual rate of 1% of final average earnings, an employee contribution rate of 2% of pay, and an average entry age of 31. Under the rules, the employee provided benefit will be essentially determined as 40% of the 2% of employee contribution rate. Under 401(l) rules, we will have an employee provided benefit that is 8/10% of final average earnings, so that the net employer provided benefit is reduced to 2/10% of final average earnings. They are basically capped to an excess accrual rate of 0.2%, since the excess accrual rate can't be more than the employer provided accrual rate up to the integration level.

The next question, and I guess the question that I'm very hopeful that someone here will have some thoughts on, is as follows. Is there any way we can use an integrated contribution schedule as we were permitted under 71-446 to address this problem? For example, consider an employer who provides a contribution schedule of 2% of pay up to the wage base and 4% of pay over the wage base. Presumably the approach is permissible although it is not specifically addressed under the 401(l) rules. Such an integrated schedule will not increase the disparity that is permitted under the 401(l) rules. In fact, depending on the approach that one uses in converting that integrated contribution schedule to an equivalent level percentage contribution schedule over time, it is conceivable that the 401(l) rules could actually be applied in a way that would reduce the amount of integration that would be possible in this situation. We are hopeful that we'll get some relief under 401(a)(4) regulations on this particular issue, although the IRS has certainly not been encouraging to date. Does anybody have any contributory plans that they have come up with that have any great solutions?

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Now I'll talk about nonqualified supplements. We are in a position to address whatever we're trying to accomplish in terms of the nonhighly compensated employee group through the qualified plan. The issue that we're really dealing with is highly compensated employees, and frankly there are two issues that we see employers addressing through the use of nonqualified supplements. These are grandfathering prior plan benefits, particularly in those cases where the employer had heavily subsidized early retirement benefits. Sheldon talked about one of the approaches, using less generous early retirement factors for excess accruals in the qualified plan, and then addressing the issue on a nonqualified basis.

The key issue is defining what is meant by a select group of management on highly compensated employees under titles 2 through 4 of ERISA. Plans which are applicable to this group of employees are not subject to title 2, title 3 or title 4 requirements of ERISA, the fundamental issues that we're dealing with. At the same time, all of us are aware of the fact that the DOL has at least suggested that they're going to be issuing regulations at some point that would provide an interpretation of this term, including the term highly compensated, that is materially different from the IRS definition of what constitutes a highly compensated employee. My own optimistic view is that ultimately it would be very nice if the term highly compensated would be used in different parts of ERISA, and the Code, with the same meaning. My personal view is that we will ultimately see that kind of position emerging from Washington. Consider an actual client, with a current 50 minus 50 PIA offset plan. The demographics of this particular employer, using the IRS definition, are that there's about 8,000 participating nonhighly compensated employees in the pension plan, out of a total work force of about 30,000 employees and 80 highly compensated employees. We have suggested, going with the fairly minimal step rate plan that meets the integration requirements of 401(l): 6/10% of final average earnings plus 6/10% of final average earnings over covered compensation. We would specifically include a provision in the qualified plan that would include a minimum of the current plan benefit for nonhighly compensated employees. We suggested that a group of 80 highly compensated employees out of a population of 30,000 employees constitutes a select group of management employees. We think we ought to be able to put in a nonqualified plan that essentially preserves current plan benefits for all nonhighly compensated employees. We think that this approach, if it is allowed, meets the three objectives which this employer had: first, not to spend any more money; second, to maintain benefits; and third to minimize the amount of benefits for highly compensated employees that had to be delivered through a nonqualified plan. We're seeing a significant increase in the amount of nonqualified supplemental plans that our clients are looking to use to deal with tax reform issues.

How many of you are looking at applying those plans to the entire highly compensated group? Anybody? And, how many of you, at this point, feel that this is unacceptably risky in terms of potential DOL position? So, a mixed bag here. This is an issue that we're hoping is going to be resolved in the very near future.

FROM THE FLOOR: Have you ever had a contributory plan, where after going through the little formula, you found out the employees were paying for it all? And what does that mean?

MR. HAAS: Look at the makeup of employer contributions and employee contributions, using the 411(c) rules, or whatever the appropriate number is for a typical contributory plan, (which in our experience tends to be a relatively nongenerous plan anyway). For young employees, up to age 30 to 35, employees are paying 100% of the cost of the benefits that are being delivered. So long as we meet the demographic rules under the regulations, we're still in a position to use the arbitrary rule.

MR. WILLIAM A. DREHER: Could you elaborate on the question you asked the audience about nonqualified supplements? Were you saying that those included in such a plan are either: a) those essentially making more than \$50,000, or b) those who are making less than three times the covered compensation base? Discuss the problem relative to such issues as compliance and issues relating to funding those nonqualified plans.

MR. HAAS: Most of our clients are not prepared to establish nonqualified plans that are going to be subject to funding requirements. Under title two we basically have an exemption for unfunded plans to cover a select group of management or highly compensated employees. The DOL has suggested that they're going to interpret that language on one basis, a basis that's totally inconsistent with the definition of highly compensated employees that's being used for TRA purposes. What were employers doing in terms of implementing plans that they thought could be maintained

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on a nonqualified unfunded basis and what employees could be included in those plans? And what we saw was probably a response of about a half-dozen people on each side of the question in terms of the approaches that their clients were taking.

MR. WILLIAM TORRIE: Are DB plans dead? And, what's the current status of cash balance plans?

In the October 16, 1989 edition of *Pensions & Investments Age*, in an article I clipped, the headline was "Cash Balance Plans a Hit," an unorthodox idea embraced by more and more employers. I thought that addressed the two questions: "Are cash balance plans dead?" Certainly not for large employers. "What is the status of cash balance plans?" Whoever wrote this article was of the mind that they were alive and going strongly. There are quite a few companies who have now adopted cash balance formulas. Ben mentioned that one of the clients of his office, Bank of Boston, had adopted a cash balance formula. There are quite a few in our office that are about to come out over the next several months. Bank of Boston is not integrated. It seems to be an issue for some people.

Continuing with the original two questions, we did a very quick and dirty internal survey within our office, and these are the results. Of the 54 plans we got somebody to answer about, nine of them had no change required. I suspect the majority of those happened to be cash balance plans. One, they decided to freeze the plans. In my mind that answers the question, "Are cash balance plans dead?" No. Of the 54 plans, only one decided it was going to freeze the plan. Thirteen kept their final average pay formula, adjusting it somehow for what they think the final regulations would be. A couple went from career average to final average. A couple kept career average. Those were probably mine, and they got rid of the integration altogether. Four went from final or career average pay to a cash balance plan, supporting the mini survey that was taken here, not with the same results, but with similar results; 21 out of the 54, a major portion, were still undecided.

Just a quick question here. Has anybody here not heard of a cash balance plan? There are no hands raised. Is there anyone here who has dealt with a cash balance plan in terms of a valuation or designing it or something? (and I see 10 to 15 hands maybe 20%). So some of you have had some experience with it, and you're probably not going to learn a whole lot from me because you've gone through most of the actions, you've learned most of the details and the design features for cash balance plans as you've designed it. But for the rest of you, we'll go over it.

A cash balance plan is a DB plan but it's communicated to employees like a DC plan. Now, as a DB plan, as Jim Holland mentioned recently, and as he also mentioned, I believe, a year-and-a-half ago, cash balance plans are DB plans. If you looked to qualify them, whatever the requirements are for a defined benefit plan, your cash balance plan has got to meet those requirements. Your normal form of benefits has got to be an annuity. You have to satisfy the benefit accrual rules. You will have to have actuarial valuations, and you'll have to meet the funding requirements. Of course, you'll still continue under FASB 87, and you'll have to meet some sort of integration rules. Of course, people who are on this panel have some sense that there appears to be a problem for some. We prefer to think of the cash balance plan in our office as a tool. It's just another DB plan, but it seems to solve a lot of problems. Notice, the first major company that had a cash balance plan was Bank of America. Their problem was they were spending 5-6% of payroll, but when they gave a survey out, asking everybody what is your pension plan, what does it do for you, they got a very, very poor response. So here we are spending 5-6% of payroll and most employees were not appreciating what they're getting. On the other hand, the DC plan was highly appreciated. It was not the intent, as I'm told, of that client to reduce cost. It was the intent to get some more value for what they were providing. They ended up changing their final average pay offset plan (very complicated) to a rather simplified, nonintegrated cash balance plan which the employees appreciated. In fact, the benefit in their cash balance account was communicated alongside of their DC account values. They were getting quarterly or semiannual statement information about their pension plan, which is very easily communicated.

There are some who are not familiar with a cash balance plan, or how it works. Let's suppose you had some sort of plan, maybe a final average pay plan, when you go to convert it to a cash balance plan, this is how it might work. The two key features of the plan might be to either have a 7% "index" credit, and a 5% of pay "service" credit. Let's develop the first-year account value. At the beginning of the year when you do your conversion, you would calculate for each employee their

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accrued benefits under the current plan, and you would find a spread in value. And that would be the opening account value on day one of the conversion. During the year, that account value would earn a 7% index credit and presuming that the employee earned about \$20,000, his 5% pay credit would add another \$1,000 to the account. At the end of the year, he's got a \$4,531 account value. Generally if you are smart, you don't give out the first statement. You wait until the half year, or maybe a year has passed, because he says "In the first ten years I've worked here, I got \$3,000 in the pension plan and the next year it increased by almost 50%." That's what cash balance plans do for employees. Something similar to that.

From the employee's perspective, there are several advantages. The employee can watch the account grow, and the benefit is expressed as an account balance at retirement. Because it is a DB plan, you have to offer an annuity, but it is a fairly simple exercise to put the conversion factors as a part of the plan. In fact it would be part of the plan. The employee has a pension guarantee. Each year all employees are guaranteed their "service" and "index" credits. And, in most plans, especially if you're replacing the final average pay plan, you may have to provide some employees who are near retirement, some sort of grandfathering, some sort of additional benefit, so that they don't come up short as a result of the plan change.

One thing we like to describe to people who are thinking about cash balance plans, is that it is a plan benefit that is portable, something like a DC plan. If an employee goes from one employer to another, and both happen to have cash balance plans, the account value could be rolled over from the initial employer to the second employer. Even if that's not the case, and the plan does provide that the lump sum would be distributed upon termination, he could always roll it over into an IRA until it does happen to fall into a plan where he could roll it back into a qualified plan. There is no investment risk to the employee, the interest rates or "index" credits, depending upon what you call them, are in the plan. They may be indexed; they may be fixed. You may pick a fixed rate which may be applied to all years, or you may pick an index (a pretty common index is the rate on one-year Treasury bills at the beginning of the plan year). That would go forward for that whole year. The following year you would have a new index. That is what makes it a DB plan. You are specifying the index rate.

Most employees consider it easy to understand. Our experience with employees who have become covered by a cash balance plan is that they're quite happy with it. It's quite attractive. I happen to have one of my own now and I have to admit I'm quite happy with it. And, I happen to be in that group that normally is considered as coming up short, that middle ground group. The account is generally paid out as a lump sum, but it doesn't have to be the case. We found that there's all different variations on that depending on what the employer's perspective of paying the lump sum and when to pay the lump sum. The attraction to the employer is the visibility and popularity among employees. You are contributing perhaps 5% of payroll, maybe more, and finally you're going to get something all employees, or at least a greater majority of employees, are appreciating and understanding than what happened in the past. It is generally easier to administer compared to a typical DB plan that would be integrated or something. Comments were made earlier about how to communicate it. I think that most of us are familiar with the problems of communicating offset plans and the negative image it sometimes has.

Another attraction to the employer is the investment flexibility. The employer is assuming the investment risk or reward. He could continue to invest his pension assets as he sees fit, and if he does it right, he could reduce his pension expense. If he doesn't do it right, he will increase his pension expense. It is a cost efficient recovery of excess assets. Sometimes we've seen employers who had an overfunded pension plan and wanted to make it go to a DC plan. The problem is generally getting the money out of the DB plan into the DC plan. This is a way of giving a DC plan not tied to employee contributions. Here's a way to give a DC type benefit without having to go through terminating the plan, getting a reversion, etc.

You can't give retiree cost-of-living adjustment (COLAs) in a DC plan. It is difficult to provide large increases, as you might get if you wanted to increase the past service benefit. It is particularly easy with these plans, as it is with DC plans, to handle mergers and divestitures. As a divestiture, you don't have to go through calculating accrued benefits and arguing about projected benefit obligations (PBOs) and accumulated benefit obligations (ABOs), and how well things are funded. You add up the accounts. As far as mergers, if you are sitting there with a cash balance plan, and you acquire a new organization, the opening account for the new employees are the

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accrued benefits, the lump sum values, of their accrued benefits under the acquired plan. From that point on they take off with whatever benefits you're providing under the cash balance plan. Another advantage generally considered for DB plans is the funding aspect, the range of contribution levels. We can anticipate in a cash balance plan, forfeitures which are a result of nonvested terminations, although I guess that's gotten smaller. You'll have an opportunity to amortize gains and losses and benefit updates. As we mentioned before, you can use up the surplus without a plan termination. Compared with a final average pay plan, in any case, the program costs, like a career average pay plan, are under much greater control than would be the case under a final average pay plan. The disadvantages are that the initial adoption may be costly. This is especially true if you happen to provide a substantial grandfather. Eventually that grandfather will be taken care of; you may end up over a long period of time, maybe ten years, depending on what the grandfather provisions are, with a plan that actually costs less than the current plan. That depends on the two plans. Some people consider it a disadvantage that there are lower benefits for employees who realize rapid pay increases in later years. One of the arguments given in some of our earlier presentations on cash balance plans, typically where the service credit was uniform over all years of service, was that here you are now with a plan that gives each employee a pension value that is in proportion to his pay, which is somehow in relation to what he has added to the value of the company. You don't have a situation you have in a final average pay plan where somebody might have had a very slow career for the first 20 years, and in the last five or ten years gets high pay increases; you've got big costs. Whereas for the first 20 years he may not have been adding particularly much to the organization. Here we have a benefit that for each year of service generates a commensurate pension benefit.

Another problem generally is lower benefits for mid-career employees, the reason being if it is a final average pay plan. Typically, if you design a cash balance plan to replace a final average pay plan, you can use as your sample employee somebody hired at age 25. In that plan for somebody who is hired at age 40, it just is not going to work unless you make some special arrangements. However, if you consider that the replacement employee had also for those first 15 years been in a cash balance plan somewhere else that provided the same benefit, then he will be exactly on the same track. Most of the cash balance plans that are designed don't have any early retirement subsidies. The benefit at any point in time is the account. When somebody leaves the pension benefit is just an annuity conversion from the account balance. You usually don't see much in the way of early retirement subsidies. But as a DB plan, you can still have windows. The opportunity to put subsidies in is still available, the same as in any other DB plan.

Some employers have an anxiety about paying employees lump sums. They could go down to Atlantic City and spend it. Frankly what drove some of the initial thinking on this was the partner who designed one of the original plans, Larry Brennan. Several of his clients have lump sum options in the plan. The fact of the matter was that 90% or so was the typical proportion of retirees who elected a lump sum. So the rationale that started some of the initial thoughts on this were if everyone wants a lump sum, why not just tell them what it is from day one? Why tell them what this pension benefit is, and then at the very end, they have to start worrying about the options factors, especially when option factors became generally dynamic. We've asked some of our clients if they had many retirees come back. At one client in particular, the administrator had been around for ten years, and probably had retired more than 1,000 employees. He had one employee come back with a problem where he had misused his lump sum. If that is a real problem to the client, you can simply design it so you don't pay the lump sum. It would just be a way of communicating your benefit at retirement, and an annuity would be paid out of the plan.

Some also consider another problem to be the front loading aspect. For instance, if you created a cash balance plan with a "service" credit that is 5% of pay each year, you've got a plan that is costing you 5% of his pay per each year of service. Compare that with a final average pay plan where in the last five or ten years, you might have incurred 90% of the cost of the pension. Some people consider that as a front loading problem.

I've seen some charts in other presentations comparing DB, DC and cash balance plans. They've got checks, yeses and nos. I looked at one, and wiped out all the yeses and nos and tried to put them back in. I got a lot of maybes or halfways. I decided to discuss each one. Benefit security in a DC plan: if you have accounts which are forced to be invested in a GIC fund. There is no real risk there. Without that, a DC plan does have an investment risk, and there may not be as much benefit security. Defined benefit is considered as being a secure benefit, and a cash balance, since it is a DB plan, does have that same security as any other DB plan. Defined

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contribution is predictable as to what your costs are going to be. For DB, costs are predicable unless you have a final average pay plan. In that case, you may have unpredictable costs. In cash balance plans, which some people consider as career average pay plans, we are back to a DB plan that has cost control.

I'm not sure what exactly is meant by design flexibility. There's not a lot of flexibility when you consider past service updates in DC plans. Defined benefit plan, yes, and a cash balance plan, reserved all the flexibility that you might have in any other DB plan. Efficient recovery of excess assets; clearly in a DC plan, no. Defined benefit plans clearly give you an opportunity to recover excess assets.

In some situations in trying to attempt to satisfy the new TRA regulations, we've had to make cutbacks in the salary plan and make improvements in the hourly plan. This has been an ideal vehicle for it, because while you may be reducing an expected final average pay benefit, the benefits that the employee is going to see on the next statement will be impressive.

I recently reviewed an announcement letter for a client. We had been talking about cash balance plans with him for more than six months. He had some outside communications expert write the notice for a cash balance plan and I noticed some terminology was wrong. Compounding it, I chose to call it the "index" credit. A lot of people have called it the interest credit; it is not investment earnings. What the fund happens to earn has got absolutely nothing to do with the interest credit that you actually credit to the account.

With regard to design alternatives, this is an area of opportunity for great creativity. The two simplest ones, however, are to simply provide supplemental service credits or to provide a dynamic minimum. If you are replacing a final average pay plan, you can still guarantee a final average pay minimum benefit to a limited group of employees. Of course, you have all your new problems of 401(a)(26). But you still have an opportunity.

Typical service credits are the flat dollar we might have in an hourly plan. That might be \$50 a quarter, \$200 a year or a percent of pay. Some of what we call "Cash Balance II," the second generation of cash balance plans within our office, have a pay credit related to service. It was mentioned that Bank of Boston did something that we generally shied away from: having the pay credit related to age and service. We generally stayed away from age because of the potential Age Discrimination in Employment Act (ADEA) problems. The last design alternative is how you are going to integrate with Social Security. Some of our plans are integrated. I'd say the split is maybe 50, 50 maybe .75 integrated, and .25 not integrated. We've certainly had integrated plans qualified before the TRA. Whether or not they are still qualified after, we think we still have some reasonable arguments. The basis of the argument is that these are DB plans and other DB plans can integrate. It is a question of deciding how the rules are going to be communicated. The two biggest problems that we see with the TRA are as follows: 1) Are the final regulations and rules going to be with integrating an index career average pay plan? Even though you communicate it as an account, basically it is an index career average pay plan. 2) With regard to the grandfather provisions, are there any 401(a)(26) problems?

