United States House of Representatives
Committee on Education and the Workforce

Hearing on "Cash Balance" Pension Plans
July 7, 2004

Statement of Robert F. Hill, Esq.

Mr. Chairman and distinguished Members of the Committee:

I am an attorney in private practice in Denver, Colorado with the law firm of Hill & Robbins, P.C. Our law firm has represented employees in several law suits challenging the legality of conversions from traditional defined benefit plans to cash balance plans. These cases include the IBM Pension Litigation in the United States District Court for the Southern District of Illinois in which Chief Judge Murphy entered an order last year finding that IBM's cash balance formula violated ERISA's age discrimination rules.

The adverse impact cash balance plans have on long-term older employees has been well documented. Even cash balance supporters have acknowledged that "it is not unusual in some cash balance conversions for the 40 to 50 year old employee to lose one-third to as much as one-half of his expected pension."[1]

The dramatic reduction in benefits for older workers created by the adoption of a cash balance plan was confirmed by a detailed report submitted to this Committee by the General Accounting Office in September 2002. Under the model of a typical conversion used for the GAO study,

> a 45-year old worker at the time of conversion receives an annual annuity of about $18,500 at retirement from the cash balance plan instead of the $39,800 annuity the worker could have received from the defined benefit plan with a final average pay formula. Likewise, a worker 50 years old at conversion receives an annual annuity of about $17,800 from the cash balance plan rather than the $35,100 annuity the final average pay formula would have provided.[2]

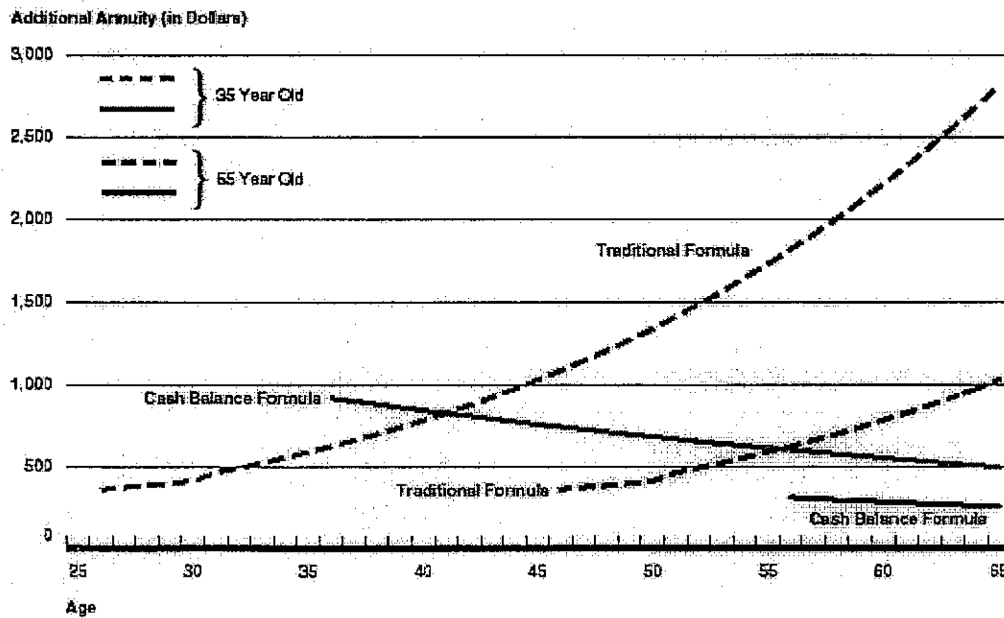
---

[1] Shapiro & Rachal, *Litigation Issues in Cash Balance Plans*, Benefits Link, (1999), http://benefitslink.com/articles/cashbalance.html .

[2] U.S. General Accounting Office, *PRIVATE PENSIONS – Implications of Conversions to Cash Balance Plans*, GAO/HEHS-00-185, at 24-25 (Sept. 2000) (hereinafter "GAO Report") http://www.gao.gov/new.items/he00185.pdf

But that only begins to tell the story of the hardship that cash balance plans impose on older workers. These are employees who have labored long and hard for an employer based on the promise of benefits under a traditional defined benefit plan where the value of benefits increase significantly in the later years of their career. Suddenly, after decades on the job, the promise of increasing age 65 benefits based on years of service and final pay is withdrawn and replaced by a benefit formula that benefits younger workers at the expense of older workers. A chart included in the GAO report illustrates this phenomenon:

Figure 5: Incremental Benefit Accruals for Workers of Different Ages Under Different Formulas



Note: Model results are based on the assumption of $40,000 salary and 10-year tenure at conversion for both the 35-year-old and the 55-year-old worker at conversion. See additional assumptions in app. II.

As shown, due to the conversion, older workers, generally those over age 40, end up with the worst of both worlds.

The findings in an ERISA Advisory Group study submitted to the Department of Labor in 1999 aptly describes this problem:

> When a pension plan is converted to a plan design that gives lower benefit accruals to older, longer-service employees, without appropriate transition protections there is a takeaway – a loss of expected future benefits – which is felt much more sharply than if the employer were simply adding a new benefit that tended to offer more to younger employees.

> The loss that older employees experience in some cash balance conversions is especially profound in companies that had previously invested the most in promoting their traditional pension plan to employees as a valuable component of the employees' compensation, encouraging employees to build careers in reliance on what they viewed as a retirement income promise.[3]

As that same study recognized, all too often the cash balance plan comes at a time in the employees' lives when they have long ago made employment, retirement and savings decisions based on the promise of a traditional defined benefit plan only to find their reasonable expectations dashed with no practical ability to make up for that loss in their remaining working years.

Some cash balance proponents point to "grandfathering" and other types of transition relief as a means to address this problem. However a study of actual cash balance conversions conducted by the actuarial firm Towers & Perrin determined that in over one-third of the conversions the employers provided no grandfathering or other form of transition benefit.[4] And even when transition relief is provided for some workers, the vast bulk of conversions leave many adversely impacted workers unprotected.

Equally egregious, in many conversions older workers experience what is referred to as "wearaway," which means that even though they continue working they earn no additional pension benefits until the amount in their cash balance plan reaches the amount they had already earned under their traditional defined benefit plan. The GAO found that the amount of wearaway any employee experiences is tied directly to age, with older workers suffering the longest periods of wearaway, sometime many years. For example, a typical conversion scenario "generated a 2-year lump sum wearaway for a 35-year old worker, a 4-year wearaway for a 45-year old worker, and an 11-year wearaway for a 55-year old worker at conversion."[5] In such an instance, shockingly, the 55-year old would earn no additional pension benefit before reaching normal retirement age.

During the past seven years, a significant number of employers have converted from traditional defined benefit plans to cash balance plans—thereby adversely impacting millions of older workers in the ways described by the GAO Report. We are before the Committee today because employers and employer related groups want Congress to

---

[3] U.S. Dept. of Labor, *Report of the Working Group Studying the Trend in the Defined Benefit Market to Hybrid Plans*, Findings 3(a) and 3(c) (November 10, 1999, http://www.efast.dol.gov/ebsa/publications/cbalinfo.htm). (hereinafter "Working Group Study").

[4] Arcady & Mellors, *Cash Balance Conversions*, JOURNAL OF ACCOUNTANCY, February 2000, http://www.aicpa.org/pubs/jofa/feb2000/arcady.htm.

[5] GAO Report, at 28.

provide exemptions for cash balance plans from the current law that applies to defined benefit plans, including the present prohibition against age discrimination.

Cash balance plans have often been described as "a defined benefit plan masquerading as a defined contribution" plan.[6] While no one disputes that cash balance plans are defined benefit plans, cash balance proponents essentially want the best of both worlds—they want to avoid the income and excise taxes that a change from a defined benefit plan to a defined contribution plan would entail and to retain the funding flexibility of the defined benefit plan, but they also want cash balance plans treated as defined contribution plans for purposes of the ERISA vesting and age discrimination rules.

However Congress has enacted very specific and very different legal frameworks for defined benefit plans and defined contribution plans. These rules were designed—with a recognition that taxpayers pay hundreds of millions of dollars to subsidize the private tax-qualified pension system--to assure that employees were treated fairly and to avoid abusive practices that undermine the promises made to employees and the employees' reasonable expectations. The Joint Committee on Taxation has estimated that in 2004 taxpayers will pay about $89 billion in foregone taxes to subsidize the private tax-qualified pension system.[7] It is only right and proper that Congress assure that the taxpayers' monies provide a system that is fair to all workers, including older workers.

Cash balance plans are the very creative invention of a handful of professional consultants who sell their services to employers. While these proponents have publicly advanced a number of lofty motivations for the conversion of traditional plans to cash balance plans, none of their claims justify the harm cash balance plans have imposed on older workers.

Cash balance advocates frequently suggest that employers are motivated to adopt cash balance plans by the increased "mobility" in the workforce. The facts indicate otherwise. Indeed, a prominent cash balance proponent has acknowledged that baby boomers "have been staying on the job longer, actually, than their parents and grandparents."[8] Similarly, a study conducted in 1998 by the Watson Wyatt actuarial firm concluded that this phenomenon applied as well to younger workers, age 25 to 34, who in 1996 spent a

---

[6] Remarks of Eric Lofgren, Vol 12. No 1 Report of the Society of Actuaries, at 419 (1986)(hereinafter "Lofgren 1986")(copy attached).

[7] Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for fiscal years 2000-2004* p. 23, JCS-13-99, December 22, 1999) http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=1999_joint_committee_on_taxation&docid=f:54622.pdf.

[8] Remarks of Eric Lofgren, New York Annual Meeting of Society of Actuaries, October 18-21, 1998, reported at p.14, Record of Society of Actuaries, Vol. 24, No. 3 (hereinafter "Lofgren 1998") (copy attached).

considerably longer time, on average, with one employer than did workers in that same age group in the 1950's.[9]

Some employers and actuaries also publicly cite the need for competitiveness as a reason for cash balance plans. However in private they acknowledge that although competitiveness sounds important, it is rarely a real issue in the decision making process.[10]

The more likely reason for many conversions, as many cash balance advocates concede, is that conversions are often used to disguise a cutback in benefits. In 1986, when cash balance plans first began to receive attention, Eric Lofgren, an actuary with Watson Wyatt, outlined for a conference of actuaries that a primary objective of conversion to a cash balance plan was to "to camouflage a benefit cutback, or remove early retirement subsidies."[11] Similarly, an actuary with Towers Perrin told a conference of actuaries that "the way the plan is presented to employees looks so dramatically different than the defined benefit plan that the employees are used to that, and the change can be used to mask a benefit cutback."[12] This advantage was still being touted in 1998, when an actuary with PriceWaterhouse-Coopers noted to the annual meeting of the Society of Actuaries that "converting to a cash balance plan does have an advantage of it masks a lot of the changes."[13]

Mr. Lofgren candidly noted that a company converting to a cash balance plan could use two very different definitions to announce the same new cash balance plan. The upbeat version most commonly used to announce a conversion optimistically touts the purported virtues of a cash balance plan, describing it as "an exciting, modern, flexible new plan design with the advantages of both defined benefit and defined contribution." He also proposed what he described as an equally accurate, but more candid, definition:

> "Dear Employee: We've got for you a cash balance pension plan. It's our way to disguise the cutbacks in your benefits. First we're going to change it to career average. We'll express the benefits as lump sum so we can highlight the use of the CPI, a sub-market interest rate. What money is

---

[9] *Workforce Management: The Cultural Shift*, Watson Wyatt Insider, Vol. 8, Issue 8, (August 1998).

[10] Lofgren 1998 at 10 – 11.

[11] Lofgren 1986 at 419.

[12] Remarks of Gary Hallenback, 1986 Conference of Consulting Actuaries, quoted in Ward, *Eating their Words*, Plan Sponsor Magazine (March, 2000). http://www.plansponsor.com/magazine_type1/?RECORD_ID=13766

[13] Remarks of William Torrie,1998 Society of Actuaries Annual Meeting, quoted in Ward, *Eating their Words*, Plan Sponsor Magazine (March, 2000)

> left in the plan will be directed towards employees who leave after just a few years. Just to make sure, we'll reduce early retirement subsidies."[14]

While cash balance advocates publicly contend that cost savings are not a significant factor in the rise of cash balance plans, in private they consistently acknowledge that "cash balance plans would hardly exist at all if it weren't for cost."[15] Most employers with an existing, overfunded, defined benefit plan who want to cut pension costs by moving to a defined contribution model are not willing to pay the cost of terminating the defined benefit plan, which arises primarily from the excise tax payable on the surplus, and then creating a defined contribution plan. A 2002 empirical study of cash balance conversions concluded that:

> If instead the firm converts to a cash balance plan, it can use all of the excess pension assets to fund future benefits. Therefore, among firms that plan to switch from a traditional defined benefit plan to a defined contribution-type plan, the likelihood of choosing a cash balance plan increases with the plan's overfunding.[16]

Employers seek to avoid this tax by creating a cash balance plan instead, which has the advantage of both looking to employees like a defined contribution plan and at the same time allowing the employer to cut their benefit obligations and use the plan surplus to forestall the need to make future plan contributions.[17]

As an additional justification for asking Congress to exempt cash balance plans from defined benefit law, including the prohibition against age discrimination, proponents currently contend that hundreds of employers have adopted such plans, in the good-faith belief that they complied with existing law. According to this argument, "fairness" to the expectations of employers requires special treatment for cash balance plans, regardless of any resulting unfairness to older workers who expected to earn most of their benefits in their later years under the traditional plans in place for decades.

No such unfairness to employers exists. Even the most aggressive cash balance proponents have conceded that in the early days of cash balance plans, many benefits

---

[14] Lofgren 1986 at 419.

[15] Lofgren 1998 at 10.

[16] Niehaus & Yu, *Cash Balance Conversions: Evidence of the Excise Tax Avoidance Hypothesis,* (2002) http://www.cba.uri.edu/tong/cash-balance.pdf

[17] Working Group Study.

consultants panned cash balance plans as a gimmick and argued that they couldn't satisfy the rules.[18]

For example, following a 1990 meeting of what later became known as the Cash Balance Practitioner's Group, attendees—which included representatives from four large pension consulting firms and two major law firms--circulated a memorandum acknowledging that "it is well known that a [cash balance] plan is at risk under a literal reading of" the age discrimination laws.[19] The Practitioners Group memorandum acknowledged that the practitioners had "heard representatives of the [Internal Revenue] Service express concern that because the benefits under cash balance plans are frontloaded, such plans may violate a literal reading of" the age discrimination laws.[20] In addition, the Report noted that a "number of practitioners believe that there is a very significant risk that the Service will ultimately take the view that it cannot avoid a literal interpretation of the statute."[21] For that reason, the group focused on the need for a "legislative fix"—a prospect that the group did not view with great optimism. Finally, the practitioners warned that, absent a legislative change, "the potential employer exposure is extremely high – potentially increasing the plan liabilities four or five times."[22]

Despite these legal concerns, and despite the failure of proponents to obtain legislation exempting cash balance plans from the age discrimination laws applicable to all defined benefit plans, a few employers went forward with conversions from traditional plans to cash balance plans in the early 1990's. However, according to a Department of Labor survey, even by 1996-97 only 4% of U. S. workers covered by a defined benefit plan were participants in cash balance plans.[23]

It was only after 1997 that the dramatic increase in the adoption of cash balance plans took place--and the resulting adverse impact on millions of older workers. Employers, eager to exploit the pension fund surpluses created by the booming stock market, rushed to adopt them, despite both the much earlier recognition of their risk and further warning

---

[18] Comments of Richard Shea, 1999 Enrolled Actuaries Meeting, Session 605: Cash Balance Plans – Current Issues (March 14-17, 1999) (copy attached).
[19] October 23, `1990 Letter from Hugh Forcier regarding Cash Balance Memorandum, at p. 2(copy attached).

[20] Memorandum, *Cash Balance Plans: Compliance with the "qualification" requirements of the Internal Revenue Code of 1986, as amended*, at 24 (Oct. 23, 1990) (copy attached).

[21] *Id.*

[22] *Id.*

[23] U.S. Bureau of Labor Statistics, *Employee Benefits in Medium and Large Private Establishments in 1997*, p. 103. http://www.bls.gov/ncs/ebs/sp/ebbl0017.pdf

signs that arose in 1996 and 1997. On January 18, 1996, the Treasury Department issued Notice 96-8, which clearly indicated that cash balance plans were subject to the same benefit accrual rules applicable to all defined benefit plans.[24] Also in 1996, the first employee lawsuit challenging age discrimination in cash balance plans was filed: a second was filed in May of 1997. In July of 1997, an Internal Revenue District Office concluded that a proposed cash balance plan violated the age discrimination prohibitions of the Internal Revenue Code because the "benefit accrual rate decreases as a participant attains each additional year of age."[25]

In spite of all of these warning signs, the number of employees covered by cash balance plans more than quintupled between 1997 and 2000, from 4% to 23%.[26] Against this background, it is impossible for the vast bulk of employers to credibly claim that they adopted cash balance plans ignorant of the risks that they violated the age discrimination laws.

Clearly there had to be powerful factors motivating this dramatic increase in the adoption of cash balance plans in the late 1990's. In addition to the well documented cost savings and the desire of many employers to use the conversions to mask benefits cutbacks to older workers, it now appears that many of these conversions were either primarily or incidentally motivated by accounting rules that allow publicly held corporations to use cash balance conversions to further inflate surpluses and generate "pension income," thereby presenting a more attractive financial picture to the investing public. As one consulting actuary puts it: "Pension funds are becoming a major profit center."[27]

Because of the way opening account balances are determined in a conversion from a traditional defined benefit plan to a cash balance plan, the conversion typically reduces the plan's Projected Benefit Obligation. Under the financial accounting standards in FASB Statement No. 87, the effect of this type of "negative amendment" can be spread out over several years, which reduces the plan's annual benefit cost for financial statement purposes in those years. Thus, as Mark Beilke, the current Chairman of the

[24] www.irs.ustreas.gov/pub/irs-irbs/irb96-06.pdf

[25] Letter from Andrew J. Fedders, IRS Cincinnati District Office, *Government's Position, No. 1* (July 28, 1997) ("The plan does not satisfy the clear and straightforward requirement of section 411(b)(1)(H) of the Code because the plan's benefit accrual rate decreases as a participant attains each additional year of age.") (copy attached).

[26] U.S. Bureau of Labor Statistics, *National Compensation Survey: Employee Benefits in Private Industry in the United States, 2000*, p. 58. http://www.bls.gov/ncs/ebs/sp/ebbl0019.pdf

[27] Pesek, *Hidden Asset: For Many Companies, Pension Plans Are Bolstering Profits*, BARRON'S (May 27, 2000)(quoting Adam Reese, Towers Perrin).

Academy of Actuaries Pension Accounting Committee, recently observed, "gains [from cash balance conversions are] mostly derived from 'accounting gimmicks.'"[28]

Employers and their advisors have long privately acknowledged the powerful motivation these accounting devices have provided to fuel the increased number of conversions. William Sweetnam, then a member of the Senate Finance Committee staff and now Treasury Department Tax Benefits Counsel, acknowledged in 1998 that the

> "primary reason cash balance plans are financially advantageous is the accounting treatment of cash balance plans versus final average earnings plans . . . With final average earnings plan [sic], you must book as a liability on your financial statements the value of pension benefit assuming future earning growth for participant's benefit. With a cash balance plan, you don't have to include future earnings growth—you only have to book your current liability for account balances. This reduces the liability in all circumstances—even if the plan grandfathers the old final average earnings benefit for older workers. So the reason that cash balance plans are better is that they make the corporations [sic] financial statement look better since pension liabilities are less."[29]

This accounting treatment of cash balance conversions can create substantial increases in a company's reported income – increases that compound the already misleading impressions that can arise from the inclusion of "phantom" pension income as part of a company's bottom line.[30] In 1999, an accounting expert at Bear Stearns, conducted a study showing that 25% of the companies in the Standard & Poor's 500-stock index reported pension income in 1998, that overall pension income accounted for 3% of 1998 operating income of the companies overall, and that for 15 of those companies pension income represented 10% or more of their total operating income for the year.[31]

---

[28] Comments posted as "MGB" on Benefits Link Cash Balance Discussion Forum, May 13, 2003.
http://benefitslink.com/boards/index.php?act=Print&client=printer&f=22&t=19682
[29] E-mail from "Bill" Sweetnam dated 12-22-98(copy attached); See also, *Actuarial Aspects of Cash Balance Plans,* Society of Actuaries Conference (July 07, 2000) http://www.soa.org/ccm/cms-service/stream/asset?asset_id=1052150.

[30] Warren Buffet has described the growing practice by some companies of creating "phantom" pension income to inflate reported income as a misrepresentation that "dwarfs the lies of Enron and WorldCom." Buffet, *Who Really Cooks the Books?*, New York Times, Section A, Page 19 (July 24, 2002).

[31] Singh, *Feathering the Nest Egg*, CFO Magazine (October 1, 2000) http://www.cfo.com:8080/article/1%2C5309%2C1006|8|A|7|7%2C00.html ; McGough & Schultz, *How Pension Surpluses Lift Companies' Profits*, Wall Street Journal (September 21, 1999)
http://acct.tamu.edu/loudder/private/647_Readings/How%20Pension%20Surpluses.htm ;

While the debate over the motivations of employers to implement cash balance plans in the absence of clear legal authorization will no doubt continue, there is no debate regarding the dramatic and adverse impact of these plans on older workers. It punishes—in some cases brutally and without the ability to recover—older workers who have worked for a company for decades based on an unequivocal promise of an increasing age 65 retirement benefit determined by reference to years of service and higher income in their later years.

Equally importantly, cash balance plans often come long after these employees made irreversible decisions regarding employment and savings based on their understandable reliance on their employers' promises only to have them suddenly dashed by the announcement of a change to a newly created pension scheme—the cash balance plan.

That is precisely the kind of abuse of the American work force that our pension laws were intended to prohibit. And it is even more unacceptable when the adverse impacts are due to discrimination based on age.

As the Committee considers any possible legislation addressing the legal issues raised by cash balance plans, I strongly encourage you to keep the need to protect these loyal, long-term older workers in the forefront. At their age and position these abrupt and unfair changes often dramatically and irreversibly adversely impact their remaining years.

These employees are the backbone of our nation's economic engine and they deserve far better and fairer treatment. Congress should continue to assure that if taxpayers are to subsidize the private pension system, employers must treat their workers fairly and without discrimination based on age.

RECORD, Volume 24, No. 3*

New York Annual Meeting
October 18–21, 1998

Session 98PD
Plan Design Issues: The Corporate Perspective

Track: Pension
Key Words: Pension Plans

Moderator: WILLIAM TORRIE
Panelists: KENNETH D. COHN†
ERIC P. LOFGREN
Recorder: WILLIAM TORRIE

Summary: Panelists discuss the issues considered by corporate sponsors in making decisions regarding the design or redesign of retirement programs, including: The impact of plan changes on the corporate financial statement and how to use retirement programs to achieve corporate goals, including downsizing.

Mr. William Torrie: The first speaker is going to be Ken Cohn. Ken is a CPA and a benefits director for Southdown, Inc. The second speaker will be Eric Lofgren. Eric is the global practice leader for retirement plans for Watson Wyatt Worldwide. Eric has been around in this business for 25 years.

Mr. Kenneth D. Cohn: I want to give you the rationalization of benefit plans. Southdown is a cement manufacturing company. In March 1998 we announced a merger with Medusa Corporation, which is another cement manufacturing company. Now, together we have 12 cement plants. We have extensive ready-mix concrete operations, and we also have aggregate operations.

First of all, I would like to go into a little bit about—at least from the corporate perspective—the philosophy of benefits. There's probably a number of thoughts and ideas about why a company provides benefits, and I've characterized them by these particular items. What is mine is mine, and what is yours is mine. I'm sure a lot of employees don't really know how benefits ever came to be, but you can believe that they think every benefit is a vested benefit. They think it's a vested

*Copyright © 1999, Society of Actuaries.

†Mr. Cohn, not a member of the sponsoring organizations, is Senior Manager of Administrative Strategy with Southdown, Inc., in Houston, TX.

Note: The charts referred to in the text can be found at the end of the manuscript.

benchmarks is almost a matter of security. You can see that if you look at health costs.

Health costs have gone up by a factor of 10 over the past 15–20 years, and employers have ridden the wave. If they really did strongly feel 20 years ago that 0.5% was the right cost for health costs, they wouldn't be spending what they are now. However, being in sync with the market is what cost level often is, which means that it's an industry-specific deal; that cost will tend to be industry specific as to what's an appropriate level and what isn't. Look at the evolution of benefits in industries that have had fat margins, say, pharmaceuticals. It's clear that in contrast to some of the businesses with much slimmer margins that really had to watch every penny, an industry such as pharmaceuticals, up until a couple years ago, in deciding on benefits really almost had to go through a process of asking, "What can we spend money on?" This is actually how I remember plan design going about 15–20 years ago. So look at the industry for cost as a benchmark. Look at what you're spending now for cost. But also look deeper as to what the right costs should be for the benefits. Look to adequacy.

Volatility cost, depending on the employer, can matter a lot or matter a little. I'm sure many of you have seen that foreign-owned companies don't quite understand *FAS No. 87* pension expense here in the U.S. or why costs should vary as much as they do. They look for a budget to be set the following July to be hit for the following year. Some of the most inventive actuarial work will probably happen this next January and February if asset values stay down, trying to hit the expense numbers that were quoted to German parents and Swiss parents in the prior July, which was right before the stock market fell from its peak.

As for the pattern of cost, you want to look at whether the cost level has implicit in it an increasing pattern or a decreasing pattern, particularly with grandfathers and, of course, one time events, curtailment, accounting, and so forth. Lest people think that this isn't a core issue, cash-balance plans would probably hardly exist at all if it weren't for cost. After all, the impetus for so many employers on cash balance is the desire to have a defined-contribution (DC) plan and being stuck with a starting place of a DB. Now there may be some employers that, presented with a clean slate, would still go cash balance because it can be funded effectively and more efficiently, but I have to think that most employers with a cash balance, if they were starting from a slate of no plan at all, would in fact put in the DC plan they're mimicking. It's the cost of termination of the DB plan that has given birth to the second most popular design today. So cost can have quite an impact.

If you talk to employers as to what's important, *competitiveness* will be one of the first two or three words out of their mouths, and it's truly there that they're looking.

Their board and their senior management are looking at their benchmark companies over and over, but in retirement plans the truth of the matter is that in terms of making a difference to the employees in the bottom line, other than the cost element, competitiveness often isn't there. In fact, just take a little survey. I'm from Watson Wyatt. Without getting into plan details or anything, how many of you would regard yourselves as competitors to Watson Wyatt? How many of you know our benefit formula? OK, and you're retirement consultants. If there is anybody who is going to focus on the worthiness of the benefit retirement formula in making a choice of one competitor versus another, it would be retirement consultants, yet not one of you as an employee knew what the competitive benefit formula was. That's OK; I don't know what the Mercer or the TP benefit formula is either.

Competitiveness sounds like it's important, but it really should be a frame of reference rather than a decision-making deal; otherwise, you're fooling yourself because it isn't a decision-making tool for your employees in terms of the industry. Sometimes there will be situations where there are two employers in town, particularly if you have a small town. I used to work for a firm that had a plant in Osceola, Arkansas. There were two employers in Osceola, Arkansas. It was basically an hourly workforce, and the comparative benefits there did mean something as employees looked at it. Of course, in that case it was the difference between dirt and dry dirt, but it did make the difference. And it will vary by industry.

As for alignment with culture, I don't know about down in Texas, but I have to tell you that as consultants in New York, we sit around and talk about alignment and culture with human resources (HR) buddies, and they talk about alignment and culture with us, and this is a really big deal up here.

Mr. Cohn: We do that all the time too.

Mr. Lofgren: It's really important to have plans that actually reinforce business objectives. If you have a paternalistic company, you probably want a plan that sort of says, "Hey, come on in, stay here forever." If you don't have a paternalistic company—if you're a bank where even the senior executives don't have the vaguest idea whether they'll have a job there six months from now or not—you probably have a culture of, "If you have a job today, you're lucky." If that's so, you probably don't want a benefit program that says, "If you stay here for your whole career, you will get such and such." It would be such a misalignment that all it would do would be to breed cynicism, and the last thing a bank in that situation needs is even more cynicism. So you want alignment with business objectives, HR objectives, total compensation, total benefits, and total retirement.

In looking around we find this is the type of plan design a lot of employers like. This is a consideration employers take in plan design. It's really a matter of what you as an employer think is fair. If you're looking year to year and you really look at benefits as current compensation, the DC approach is the only approach that's fair. You give the same 4% to everybody. A DB plan, a traditional plan, doesn't do that. It gives something worth 0.25% to a young person and worth 8% to an older person. If people do stay with you until retirement and you want retirement adequacy, then you might have a concept of deferred compensation there; that benefits are deferred compensation. You're going to be measured by what people get when they leave you in comparison to what they get when they leave somebody else. There's a matter of what your time frame is and your philosophical view on what a benefit is. Then there are designs that you can do either through pension equity or by having both a DB and a DC plan married together, which will give you a dual horizon. The game there would be to have benefits that work as lump sums for people who have a current compensation framework, which will be younger people, and to deliver benefits of deferred compensation for career employees or older employees.

Going back to a high-performance culture, baby boomers are half the workforce—75 million out of a workforce of 150 million—and they're in a 17- to 18-year span of age. They're becoming older now. The oldest baby boomers, as you know, are age 51. The youngest are age 34. In fact, the baby boomers have had the same level of mobility as their parents and grandparents when you look at people at the same age. So yes, the workforce as a whole is more mobile, because the average age of the workforce fell by six years, but if you look at baby boomers at age 30, they acted just like their parents or grandparents at age 30 in terms of how long they stayed on the job. It's surprising, but it's true. At age 40 they acted like their parents and grandparents in how long they stayed on the job at age 40. There has been some change above age 45, but that's the Eisenhower generation. That's not the boomers. So far the boomers have been staying on the job longer, actually, than their parents and their grandparents.

It's reasonable to assume, or at least to postulate, that the baby boomers will want to settle in when they're 55, just like every other generation that has ever gone before them. If so, you're going to have a less mobile workforce as the baby boomers age, and that's going to be a real clash for these companies—which seem to be half the companies nowadays—that are going to a high-performance culture at the same time as the baby boomers are getting older. There's a conflict among baby boomers for the first time, saying, "OK, we didn't save a cent. We went, we had a good time, we were a very materialistic group. Now we're 50. We care about retirement income." If the baby boomers as a group do that—and if they want to retire early, they will do that—they're suddenly going to want a return to paternalism as, say,

FAEGRE & BENSON
2200 NORWEST CENTER
90 SOUTH SEVENTH STREET
MINNEAPOLIS, MINNESOTA 55402-3901
612/336-3000
FACSIMILE 336-3026

SUITE 1150, 8400 TOWER
8400 NORMANDALE LAKE BOULEVARD
BLOOMINGTON, MINNESOTA 55437-1076
612/921-2200
FACSIMILE 921-2244

2900 REPUBLIC PLAZA
370 SEVENTEENTH STREET
DENVER, COLORADO 80202-4004
303/592-5900
FACSIMILE 592-5693

SUITE 800
1140 CONNECTICUT AVENUE N.W.
WASHINGTON, D.C. 20036-4001
202/728-0853
FACSIMILE 728-0857

10 EASTCHEAP
LONDON EC3M 1ET, ENGLAND
071/623-6163
FACSIMILE 623-3227

MEMORANDUM

TO: Attached distribution list

FROM: Hugh Forcier

DATE: October 23, 1990

RE: Cash Balance Memorandum

A meeting occurred on September 24, 1990 in Washington, D.C. among a number of practitioners who were known to be interested in cash balance plan issues. At the end of the meeting, we promised to substantially edit a rough draft of a memorandum that we had distributed prior to the meeting. That redraft is enclosed. (Note: Appendices B and C will follow.)

Plan formats that we have concluded are backloaded:

The edited memo expands upon the conclusion that many cash balance plans are, in fact, backloaded. Included among examples of such plans are plans like the Bank of America format that use discretionary interest credits.

However, we have concluded that any plan that determines the accrued benefit by dividing the current Cash Balance Account by 200 (or some similar uniform number) (regardless of current age) is backloaded. Our impression is that a very large portion of the cash balance plans are within this category.

Notwithstanding our conclusion, it is our impression that practitioners responsible for these plans have tested the plans under 401(a)(4) on the view that they are frontloaded. Obviously, if we are correct, the basis of 401(a)(4) testing would be incorrect.

Of at least equal concern would be our conclusion that these plans may not be able to meet the anti-backloading restrictions of Code § 411(b).

We are also troubled that cash balance plans of this type may not comply with the requirement that the QJ&S be at least as valuable as the most valuable benefit. In the case of many plans that divide the current Cash Balance Account (regardless of age) by 200, the method used to determine the lump sum implies an assumption of a zero percent interest rate and no mortality for the period prior to normal retirement age. Yet we frequently find that the optional forms of life contingent annuities payable prior to normal retirement age are determined by using relatively normal interest and mortality factors. This would seem to us to make the life contingent options less valuable than the lump sum.

Plans that we have concluded are frontloaded:

Many plans are unquestionably frontloaded (*i.e.*, those plans that promise to continue to credit an indexed interest rate until normal retirement age and protect that promise under 411(d)(6)). It is well known that a frontloaded plan is at risk under a literal reading of Code § 411(b)(1)(H). While we believe most practitioners are of the view that at least a legislative solution to this problem is highly probable, in the event a retroactive solution is not found, the potential employer exposure is extremely high — potentially increasing the plan liabilities four to five times. We find that, particularly in the area of employee benefits, potential problems that have a low occurrence probability but high exposure are very troubling to employers.

In addition, we are concerned that many of the unquestionably frontloaded plans may have problems complying with the rule that the lump sum be calculated using an interest rate no greater than PBGC rates. We understand that in "proving" compliance with this requirement, many practitioners rely on the view that, in future years, the indexed interest rate can be assumed to be the same as the PBGC interest rate. We find this assumption troubling because it seems to be clearly unreasonable in most situations. We see no historical correlation (much less equality) between the indices used under cash balance plans (for example, Treasury rates) and PBGC rates. Our "solution" has been to draft the practice into the plan document. But, of course, our solution may not be accepted by the Service. In any event, this problem may also require a legislative fix. Again, the employer exposure is extremely high.

401(a)(9):

We have seen many plans that provide for an increasing life annuity. While many plans define the rate of increase as a COLA, in fact many of these plans

increase the annuity at a rate higher than what we understand to be an "accepted" cost-of-living index. Increases in excess of a generally accepted cost-of-living index appear to violate 401(a)(9).

I expect to call each person on the distribution list for his/her reaction. If there is interest, we might have a follow-up meeting. In the meantime, please call me with any questions at (800) 328-4393.

It is our expectation that, with appropriate edits, the memo will be sent to the IRS.

Distribution List

The attached memorandum has been distributed to those who attended the September 24th meeting* and copies have been sent to other within the same firm (as well as certain others within the same firms):

Persons attending the meeting:	Copies to:
Hewitt Associates Thomas C. Butterworth, Esq. 40 Highland Avenue Rowayton, CT 06853 203-852-1100 ext. 3249 fax: 203-853-2224	
Kilpatrick & Cody Mark D. Wincek, Esq. and Jan C. Stewart, Esq. Suite 800 700 13th Street, N.W. Washington, D.C. 20005 202-508-5800 fax: 202-508-5858	
Milliman & Robertson Mr. A. Richard LaBombarde Associate Actuary Suite 400 2445 M Street, N.W. Washington, D.C. 20036 202-429-9760 fax: 202-331-3387	Mr. Tim Davenport 1301 Fifth Avenue Suite 3800 Seattle, WA 98101 206-624-7940 fax: 206-340-1380
The Wyatt Company Kyle N. Brown, Esq. Benefits Attorney Research Information Center Homer Building, Suite 1000 601 13th Street, N.W. Washingotn, D.C. 20005 202-508-4616 fax: 202-508-4688	Mr. Robert Rietz 200 First National Building Detroit, MI 48226 313-961-5485 fax: 313-961-3383 Ms. Vicky A. Slomiany Consulting Actuary 8400 Normandale Lake Boulevard 15th Floor Minneapolis, MN 55437 612-921-8700 fax: 612-921-8701

* On behalf of those who attended, we thank Mercer for making their offices available.

Persons attending the meeting:

William M. Mercer
Garry P. Jerome, Esq.
Managing Director
Suite 400
1515 Market Street
Philadelphia, PA 19102
215-963-4388
fax: 215-864-9906

Paul V. Strella, Esq.
Suite 400
1001 22nd Street, N.W.
Washington, D.C. 20037
202-223-5910
fax: 202-223-5985

Copies to:

Harry J. Conaway, Esq.
(D.C. address)

Mr. James Scearcy
1800 Piper Jaffray Tower
222 South Ninth Street
Minneapolis, MN 55402
612-338-5440
fax: 612-337-5123

Ms. Anne Talluto
10 S. Wacker Drive
Chicago, IL 60606
312-902-7728
fax: 312-902-7626

In addition, we have made copies of the memorandum available to practitioners in certain other firms:

Benefit Service Corporation
Mr. Jim Berry
1000 Second Avenue
24th Floor
Seattle, WA 98104
(800) 845-5556
fax: 206-554-2695

Buck Consultants
Mr. Ken E. Polk
Consulting Actuary
Suite 1800
2121 San Jacinto
Dallas, TX 75210
214-969-1001
fax: 214-978-6801

Carroon & Black Consulting Group
Mr. Warren J. Winer
President, Chief Operating Officer and
Director of the Central Region
Bemiston Tower Building
Suite 400
231 South Bemiston
St. Louis, MO 61305
314-725-0114
fax: 314-725-2724

Kwasha Lipton
Howard Golden, Esq.
2100 North Central Road
Ft. Lee, NJ 07024
201-592-1300
fax: 201-592-9012

Towers, Perrin, Forster & Crosby
Mr. Paul T. Shulze
Vice President
100 Summit Lake Drive
Valhalla, NY 10595
914-745-4278
fax: 914-745-4310

DRAFT: October 23, 1990

[F&B letterhead]

A PRACTITIONER DISCUSSION MEMORANDUM

Cash Balance Plans: Compliance with the "qualification" requirements of the Internal Revenue Code of 1986, as amended.

Hugh Forcier and Doug Heffernan,
Partners, Minneapolis
Danny Miller,
Partner, Washington, D.C.

Date: October __, 1990

On June 4, 1990, our firm submitted comments to the Internal Revenue Service regarding the application of the proposed regulations under Internal Revenue Code § 401(a)(4) to cash balance plans. In those comments, we urged the Service to consider adopting safe harbor rules for cash balance plans. Based on our subsequent discussions with the IRS National Office and public statements of IRS staff before practitioner groups, we understand that the Service does not believe that it is in a position to consider adopting Code § 401(a)(4) safe harbor rules until it has had an opportunity to evaluate the general qualification requirements for such plans.

The Service has invited us to submit a memorandum commenting on the entire range of qualification requirements that cash balance plans must meet. In mid-September, we prepared a draft memorandum that was intended to respond to that request. On September 24, 1990 we met with a number of practitioners in Washington, D.C. (including four employee benefit consulting firms and one other law firm) to go over the qualification issues presented by cash balance plans. At the conclusion of that meeting, we agreed to prepare this memorandum and circulate it to both those who attended the meeting and to some other benefit consulting firms.

© 1990 Faegre & Benson

SUMMARY OF CONCLUSIONS

The most difficult issues relate to the question of when the portion of the accrued benefit attributable to the interest based credit accrues. We believe that timing of the interest based accrual depends on the terms of the plan. We have found there are at least three different ways that practitioners have provided for the timing of the accrual of the interest based credit.

A. General qualification requirements -- other than 401(a)(4)

1. Plan formats under which the employer commits to credit a specified (usually indexed) rate of interest on the current year's account balance from the current year through normal retirement age (Format #1)

This type of plan has the greatest human resource appeal. However, there are some concerns regarding whether it can comply with the general qualification requirements.

One of the most serious concerns relates to Code § 411(b)(1)(H). While we believe arguments can be made supporting the conclusion that Code § 411(b)(1)(H) is not violated, a number of practitioners quite strongly believe that this type of plan does not comply with a literal reading of that provision. However, these practitioners believe that sound policy arguments can be made why the Service should not apply a literal reading.

Conceding the possibility that even if the Service is convinced as a matter of policy, it may not be willing to ignore a literal reading of Code § 411(b)(1)(H), many practitioners are nevertheless optimistic that because the Service is unlikely to have policy objections, a legislative fix would be relatively easy to obtain. We are somewhat less optimistic regarding the chances of a legislative fix.

It should be noted that if a favorable resolution of the 411(b)(1)(H) issue cannot be achieved, the financial cost to employers maintaining these types of plans could be extremely high. In one case having rather typical demographics, the consulting actuary estimated that the employers' cost would increase four to five times!

Another qualification issue of concern to many practitioners is compliance with the requirement under Code § 417(e) that the lump sum be calculated using a discount rate no greater than the applicable PBGC rate. Typically, plans use indexed interest rates that by historical standards are higher than the PBGC rates. Most practitioners have nevertheless adopted practices that assume the two rates are identical; that is, they project the accrued benefit assuming that future interest credits will be based on a rate identical to the PBGC rates and then discount back using PBGC rates. This practice appears to be applied even where there is no historical justification for the assumption. If the Service were to reject this practice, the plan would have to pay out a larger lump sum than the employer had expected. The increase could be very significant in the case of a younger participant.

In contrast to the practice of assuming that the two rates are equal, we draft cash balance plans to provide that if the participant elects early commencement, his/her accrued benefit is calculated with reference to the PBGC rate. We believe this provision meets all applicable requirements.

2. Plan formats using discretionary interest based credits (Format #2A)

Under this format of cash balance plans, we think it is clear that the employer has reserved the right to curtail all future interest based credits -- even those that relate to compensation based credits accumulated through the current year. Indeed, under the practice recommended by one prominent practitioner, the employer expressly states that the interest crediting rate will revert to zero after the current year.

It is our view that under this type of plan, all of the general qualification requirements are easily met.

> Note: Not many plans appear to use this format. Presumably, this is because it is not as attractive from a human resources perspective as a plan under which the employer has committed to pay some interest in future years -- usually at a rate measured by an index.

We should note that some practitioners are of the view that the IRS will imply a commitment to credit interest from the current year to normal retirement with respect to the accumulated credits. We recognize the legitimacy of that concern. However, we believe that ultimately the Service will recognize the reserved right to decrease future interest credits to zero. In any event, we doubt that employers who have used this format would concede that they may not have the right to reset the interest rate to zero.

3. Plans that provide for a specified (usually indexed) interest rate for future years—but nevertheless do not include such future interest as a 411(d)(6) protected benefit (Format #2B)

This format may be the most common format. If the future interest is not a 411(d)(6) protected benefit, then, at least in our view, the interest credited each year with respect to the entire accumulated balance is an accrual entirely attributable to the current year. This creates a serious backloading problem. As time progresses, the interest credited each year will become increasingly large and in a very short number of years, the accrual will violate all of the anti-backloading restrictions under Code § 411(b).

The only way we believe that a backloading violation can be avoided is to qualify for a special rule applicable under the 133 1/3 percent rule. Regrettably, we see qualification for that rule as problematic.

B. The 401(a)(4) proposed regulations

1. Compliance with regulations as proposed

We think it is clear that none of the cash balance plan formats can comply with any safe harbor. Whether a cash balance plan can comply with "general rule" testing depends upon how the interest based credit accrues:

a) Plans under which the employer commits to credit interest on existing account balances from the current year through normal retirement age (Format #1)

This type of plan frontloads and therefore will fail the general test if a large portion of highly compensated employees ("HCEs") are younger than a large portion of non-highly compensated employees ("NHCEs").

b) Plans using discretionary interest credits (Format #2A)

It is our view that most plans using this format have little problem complying with the general test. The portion of the accrued benefit attributable to compensation based credits should satisfy the general test easily (at least assuming that the compensation based credit is not age and/or service weighted or integrated).

The discretionarily awarded interest is, in our view, a past service credit which probably can be determined to be non-discriminatory under the facts and circumstances test. In our view, as long as the rate of interest credited under the plan is not in excess of what a terminated participant who received a lump sum could have realized as the yield on a relatively risk-free rollover IRA, no former employee is being discriminated against and the facts and circumstances test is satisfied.

c) Plans that provide an interest rate index for future years—but nevertheless do not include future interest as a 411(d)(6) protected benefit (Format #2B)

In our view, this type of plan backloads. The plan will therefore fail the general test if a large proportion of HCEs are older than a large portion of the NHCEs.

It should be noted that many practitioners appear to analyze this type of plan very differently. They view it as frontloaded and have performed the 401(a)(4) testing on that basis. Since this type of plan may be the majority format, if our analysis is correct, many tests have been performed incorrectly.

2. Proposed safe harbors

a) Plans under which the employer commits to credit interest on existing account balances from the current year through normal retirement age (Format #1)

We intend to propose a safe harbor based on the argument that these plans provide a benefit that is a uniform percent of current pay. We expect that the IRS will impose the condition that the interest rate be within a corridor. We will urge that the corridor be established with reference to outside indices. On the low end, we would try for somewhat less than PBGC rates, and on the high end, somewhat more than U.S. Treasury bill rates.

b) Plans using a discretionary interest credit (Format #2A)

We will urge the Service to adopt a safe harbor for this format having the following characteristics:

(i) The compensation based credits could be tested as if they were provided under a separate plan and thereby qualify for the "uniform" percent of compensation safe harbor – at least assuming that the formula is not age and/or service related or integrated. If the format is age and/or service related, we would urge a safe harbor similar to the safe harbor the Service has provided for defined contribution plans with contribution formulas having an age and/or service related formula.

(ii) The interest based credits would be tested under the availability rule of Reg. § 1.401(a)-4 and a safe harbor would be provided as long as the rate of interest actually credited does not exceed an interest rate that a former participant who received a lump sum could reasonably be expected to have earned on a relatively risk-free rollover IRA.

c) Plans that provide an interest rate index for future years—but nevertheless do not include future interest as a 411(d)(6) protected benefit

We would propose that the plans qualify for the safe harbor we proposed for plans that use a discretionary formula. (See b) above.)

d) Other safe harbors

We intend to propose other safe harbors, including ones for integrated plans and for transitional arrangements.

Outline — Table of Contents

Page

PART I. Background

A. The design philosophy of cash balance plans is similar to defined contribution plans 9
  1. Under a cash balance plan (and a defined contribution plan), the participant can easily value the benefit he/she earns for each year of covered service 9
  2. Some employers view a cash balance plan (and a defined contribution plan) as providing a fairer allocation of the dollars that the employer has budgeted for retirement benefits 9

B. What factors might prompt an employer to use a cash balance plan instead of a defined contribution plan? 11
  1. The inherent differences between cash balance and defined contribution plans affecting the decision to use one or the other 11
    a) The risk and reward of plan asset investment experience 11
      (i) From the employee's point of view 11
      (ii) From the employer's point of view 11
    b) Timing of forfeiture gains 12
    c) Funding flexibility 12
      (i) In general 12
      (ii) Flexibility to reduce future costs 12
    d) Vehicle for funding reduction in force benefits 12
    e) Code section 415 limits 12
      (i) Higher general limits 12
      (ii) More flexible limits for disability benefits 12
    f) Differences that favor defined contribution plans 12
      (i) Permitted disparity 13
      (ii) Conditions on benefit accruals 13
  2. Additional factors when the employer has previously maintained a defined benefit plan covering the same group of employees 13
    a) The marginal cost and burden of a cash balance plan is not as great 13
    b) The cost associated with accelerated vesting and excise taxes on reversions can be avoided 13
    c) Disadvantages of using a cash balance plan 13

PART II. A description of cash balance plans

A. The "Compensation Based Credit" 14
  1. Flat rate credits 14
  2. Age and service related credits 14
  3. Integrated credits ("permitted disparity") 14
B. The "Interest Based Credit" 14
  1. Fixed rate plans 15
  2. Variable index rates 15
  3. Discretionary rates 15
  4. Minimum rates 15
  5. Maximum rates 15

Page

C. How Compensation Based Credits and Interest Based Credits are combined to define the "accrued benefit" under the terms of the plan 15
   1. Format #1: Accumulated Compensation Based Credits and accumulated and future Interest Based Credits are converted to a monthly "accrued benefit" 15
   2. Formats #2A and #2B: Accumulated Compensation Based Credits and accumulated (but not future) Interest Based Credits are converted to an "accrued benefit" amount 16
      a) Format #2A: Discretionary Interest Based Credits 16
      b) Format #2B: Plans that provide an indexed rate for future years but do not include future interest in the definition of accrued benefits 17
D. Form of the single life annuity provided as the normal retirement benefit 18
E. Lump sum option 18
   1. Amount of lump sum 18
      a) Calculation of the lump sum under Format #1 18
      b) Calculation of the lump sum under Format #2 19
   2. Entitlement to lump sum option 19
      a) Full lump sum immediately after any termination of employment 19
      b) Full lump sum after attaining a specified age 19
      c) Partial lump sum 19
F. Life contingency optional forms commencing prior to normal retirement age 19
   1. Calculation under Format #1 19
      a) Increasing single life annuity 19
      b) Other forms of life contingency options 20
   2. Calculations under Format #2 20
G. Death and disability benefits 20
H. Transitional features 20

PART III. Technical analysis of general qualification requirements applicable to cash balance plans

A. The linchpin technical question: When does the Interest Based Credit accrue? 21
   1. Are the future Interest Based Credits a 411(d)(6) protected benefit? 21
      a) If interest for the period between the current year and the normal retirement age is viewed as part of the 411(d)(6) protected benefit for the current year, then that interest is part of the accrued benefit for the current year 21
      b) If interest for the period between the current year and the normal retirement age is not viewed as part of the accrual for the current year:
         (i) The increase in the accrued benefit for the current year could be viewed as including the interest that is added to the account for the current year 21
         (ii) The Interest Based Credit can be viewed as not part of the accrued benefit in any year 21

Page

2. We believe the answer to whether, when, or how, the Interest Based Credit is part of the accrued benefit turns on whether that credit is defined by the plan itself as a 411(d)(6) protected benefit 21
3. We believe that the IRS will view Interest Based Credits as part of the accrued benefit 22

B. Technical analysis of Format #1 22
1. Requirements that apply to the "accrued benefit" 22
a) The definitely determinable benefit requirement ....
b) The requirement under Code § 411(a)(7)(A)(i) and Regulation § 1.411(a)-7(a)(1) that, for purposes of the rules under Code section 411, the accrued benefit must be restated in the form of a single life annuity commencing at normal retirement age 22
(i) Estimate the initial amount of the increasing life annuity 23
(ii) Estimate how much the annuity will increase following normal retirement age 23
(iii) Convert the estimated increasing annuity to an estimated level annuity 23
c) The accrued benefit must become nonforfeitable within the time prescribed under Code section 411(a) 23
d) No amendment can reduce the amount of the accrued benefit 23
e) The amount of the accrued benefit cannot be reduced on account of an increase in age or service 24
f) The rate of benefit accrual cannot be reduced on account of attainment of any age 24
g) The accrued benefit cannot be "backloaded" in violation of Code section 411(b)(1) 25
h) The normal form of benefit cannot violate Code section 401(a)(9) 25
2. Requirements related to optional forms of benefits 25
a) All forms of benefits must be based on actuarial factors that are definitely determinable and reasonable 25
b) A QJ&S benefit must be provided at any time any form of benefit payment is available and the QJ&S must be at least as valuable as any other form of benefit offered at that time 25
c) The discount rate used to calculate the lump sum benefit cannot be greater than the PBGC interest rates 26
d) The rate used to discount the 415 limits cannot be less than 5% 26
e) Each optional form of benefit cannot violate Code § 401(a)(9) 26

C. Technical analysis of Formats #2A and #2B 26
1. Requirements that apply to the "accrued benefit" 27
a) The definitely determinable benefit requirement 27
(i) Format #2A 27
(ii) Format #2B 27
b) The requirement that, for purposes of Code section 411 testing, the accrued benefit must be restated in the form of a single life annuity commencing at normal retirement age 27
c) The accrued benefit must become nonforfeitable within the time period prescribed under Code section 411(a) 27

Page

d) No amendment can reduce the amount of the accrued benefit 27
e) The amount of accrued benefit cannot be reduced on account of an increase in age or service 27
f) The rate of benefit accrual cannot be reduced on account of attainment of any age 27
g) The accrued benefit cannot be "backloaded" in violation of Code section 411(b)(1) 27
(i) Format #2A 27
(ii) Format #2B 27
h) The normal form of benefit cannot violate Code section 401(a)(9) 28
2. Requirements related to optional forms of benefit 28
a) All forms of benefit must be based on actuarial factors that are definitely terminable and reasonable 28
b) A QJ&S benefit must be provided at any time any form of benefit payment is available and the QJ&S must be at least as valuable as any other form of benefit offered at that time 28
c) The discount rate used to calculate the lump sum benefit cannot be greater than the PBGC rates 28
d) The rate used to discount the 415 limits cannot be less than 5% 28
e) Each optional form of benefit cannot violate Code § 401(a)(9) 28

PART IV. The proposed 401(a)(4) regulations and possible modifications of those regulations

A. Application of proposed 401(a)(4) rules to cash balance plans 29
1. Format #1 plans 29
a) A Format #1 plan cannot meet the safe harbor rules for defined benefit plans set out in Prop. Reg. § 1.401(a)(4)-3(b)(2) 29
b) A Format #1 plan maintained by a large employer would have great difficulty meeting the "general rule" set out in Prop. Reg. § 1.401(a)(4)-3(c) that tests "accrual rates" 29
c) A Format #1 plan could not meet the "general rule" set out in Prop. Reg. § 1.401(a)(4)-2(b) for testing "allocation rates" after conversion pursuant to the rules set out in Prop. Reg. § 4.401(a)(4)-8(c) 29
2. Format #2 plans 30
a) A format #2 plan cannot meet the safe harbor rules for defined benefit plans set out in Prop. Reg. § 1.401(a)(4)-3(b)(2) 30
b) Format #2 plans can probably meet the "general rule" set out in Prop. Reg. § 1.401(a)(4)-3(C) 30
B. Suggested safe harbor rules 31
1. Format #1 plans 31
a) A design-based safe harbor rule could be fashioned under Prop. Reg. § 1.401(a)(4)-3(b) 31
b) Alternatively, a somewhat workable rule for cash balance plans could be fashioned under Prop. Reg. § 1.401(a)(4)-2(c) 31
2. Format #2 plans 31
C. Safe harbor for integrated cash balance plans 31
D. Safe harbor for transitional arrangements 32

"Accrued Benefit" as including the Interest Based Credits for the period between the current year and normal retirement age with respect to the Compensation Based Credit for the current year? On this very fundamental question, there appears to be significant differences in the ways practitioners have drafted cash balance plans.

If Format #1 has been used, then the "Accrued Benefit" includes future Interest Based Credits. (See Format #1, Sec. 10.01 which protects the "accrued benefit" against cutback and Format #1, Sec. 4.03(b) and (c) which defines the accrued benefit as including the future interest.) If the plan has been drafted in this manner, then we think it is clear that interest on the current year's Compensation Based Credit for the period between the current year and normal retirement age is part of the accrual for the current year.

In contrast, if the plan is drafted as Format #2A or #2B, then we think it is clear that interest on the current year's Compensation Based Credit for the period between the current year and normal retirement age is not part of the accrual for the current year. The question becomes whether all of the requirements of the Code can be met by either approach.

3. We believe that the IRS will view Interest Based Credits as part of the accrued benefit.

Before going further, we should note that we see no possibility that the IRS will ignore Interest Based Credits when applying the various qualification tests to the "accrued benefit". Rather, we think the IRS will require that Interest Based Credits be included as part of the "accrued benefit" for all purposes.

As previously noted, we understand that practitioners who are of the view that the IRS will permit the Interest Based Credits to be ignored rely on the argument that Interest Based Credits are COLAs. First, we would note that when the IRS has permitted COLAs to be ignored it has limited COLAs to a "specified and generally recognized cost-of-living index". See Rev. Rul. 71-446, Sec. 18.02 and Prop. Treas. Reg. § 401(a)(9)-1,F-3(a)(1). In our experience, very few cash balance plans specifically use a "generally recognized cost-of-living index" as the index to determine the Interest Based Credit.

The use of a generally recognized COLA would not be consistent with human resource considerations. This is because a generally recognized COLA would not provide a rate of return that would be perceived by participants to be the equivalent of a defined contribution plan. Rather, the participants typically expect a real rate of return; that is, some amount in excess of inflation.

Even with respect to those few plans that do use a recognized cost-of-living index to determine the Interest Based Credit, we believe that the Service will include the portion of the benefit attributable to the Interest Based Credits as part of the accrued benefit. In support of that conclusion, see Shaw v IAM Pension Plan, 750 F.2d 1458 (9th Cir. 1985) which held that a post retirement COLA was part of the accrued benefit.

The fundamentally different approaches to the Interest Based Credit (assuming the IRS will not ignore the Interest Based Credits) will be discussed separately as follows:

B. Technical analysis of Format #1.

There are a number of qualification requirements that apply to the accrued benefit and to the time, form and amount of each optional settlement. Each of these will be discussed in this section of the memorandum – with the exception of the proposed non-discrimination tests under Code section 401(a)(4) which are discussed in Part IV of this memorandum.

1. Requirements that apply to the "accrued benefit":

a) The definitely determinable benefit requirement:

This requirement is established in Code section 401(a)(25), Regulation § 1.401-1(b)(1)(i), and Rev. Rul. 74-385. A pension plan is required to have a formula for determining the amount of the benefit that is not subject to the discretion of the employer.

We believe that the accrued benefit under the type of plan illustrated in Format #1 meets the definitely determinable benefit requirement. Presumably, the only question would arise from the fact that the interest rate from the end of the current year to normal retirement age might be indexed. Thus, the accrued benefit cannot be stated in terms of a specific dollar amount until the participant reaches normal retirement age. We do not see this as a problem, since the definitely determinable benefit requirement is satisfied if the formula is specific and beyond the control of the employer.

b) The requirement under Code § 411(a)(7)(A)(i) and Regulation § 1.411(a)-7(a)(1) that, for purposes of the rules under Code section 411, the accrued benefit must be restated in the form of a single life annuity commencing at normal retirement age.

For purposes of the various rules under Code § 411 (including most of the rules discussed in the following sections), "accrued benefit" means an annual benefit commencing at normal retirement age which is the actuarial equivalent of the accrued benefit determined under the terms of the plan. Code § 411(a)(7) provides as follows:

> (7) ACCRUED BENEFIT.—
> (A) IN GENERAL.—For purposes of this section, the term "accrued benefit" means—
> (i) in the case of a defined benefit plan, the employee's accrued benefit determined under the plan and, except as provided in subsection (c)(3), expressed in the form of an annual benefit commencing at normal retirement age, ...

Reg. § 1.411(a)-7(a)(1) provides as follows:

> (a) Accrued benefit. For purposes of section 411 and the regulations thereunder, the term "accrued benefit" means—
> (1) Defined benefit plan. In the case of a defined benefit plan—
> (i) If the plan provides an accrued benefit in the form of an annual benefit commencing at normal retirement age, such accrued benefit, or
> (ii) If the plan does not provide an accrued benefit in the form described in subdivision (i) of this subparagraph, an annual benefit commencing at normal retirement age which is the actuarial equivalent (determined under section 411(c)(3) and §1.411(c)-5) of the accrued benefit determined under the plan.

The accrued benefit set out under Format #1 is stated in the form of an increasing single life annuity. The requirement in Reg. § 1.411(a)-7(a)(1)(i) that the accrued benefit must be "in the form of an annual benefit" implies that an increasing annuity does not satisfy that requirement. However, we believe that the requirement of Reg. § 1.411(a)-7(a)(1)(ii) can be met. To meet paragraph (ii), reasonable actuarial assumptions must be used to convert the increasing single life annuity provided in the plan to a level single life annuity. This process can be accomplished in three steps:

(i) Estimate the initial amount of the increasing life annuity: If the accrued benefit expressed in the form of a level single life annuity needs to be determined for testing purposes, it is first necessary to estimate the initial annual amount of the increasing life annuity. An estimate of the initial amount of the increasing life annuity is required because that initial amount depends on the Interest Based Credits for the period between the current year and normal retirement age. We see no requirement that reasonable actuarial assumptions cannot be used for the period prior to the normal retirement age. By analogy to the type of projection required under Reg. § 1.415-7(b)(3), we presume that, for purposes of projecting forward, it would be acceptable to the Service to use the indexed interest rate that is being used to determine the Interest Based Credits for the current year.

(ii) Estimate how much the annuity will increase following normal retirement age: For the same reason, we assume it is acceptable to the Service to project the post-commencement increases in the increasing life annuity by continuing to use the indexed interest rate that is being used to determine the Interest Based Credits for the current year.

(iii) Convert the estimated increasing annuity to an estimated level annuity: We presume that in determining the reasonableness of factors used for this conversion, the Service would follow the principles established in Prop. Reg. § 1.401(a)(4)-3(c)(2)(iv). For example, a $1 increasing annuity presumed to increase at 7 1/2% annually would convert to a level annuity of $____, assuming UP-'84 and a 7 1/2% interest rate.

c) The accrued benefit must become nonforfeitable within the time prescribed under Code section 411(a).

Code section 411(a) requires that the accrued benefit under the plan must become nonforfeitable within the rules specified in Code section 411(a). Reg. § 1.411(a)-4T(a) provides that "a right to an accrued benefit is considered non-forfeitable at a particular time, if, at that time and thereafter, it is an unconditional right".

We believe that the requirement that the benefit be unconditional is clearly satisfied by Format #1.

Presumably, the only issue that could arise is presented by the fact that the Interest Based Credits for the period between the current year and the normal retirement age are based on an index. Thus, the estimated amount of the accrued benefit can go down from one year to the next. However, we do not see the possible reduction of the estimated accrued benefit to be a forfeiture. The participant's right was to receive the indexed interest – not an estimate of the index. The estimate was necessary only to perform testing.

d) No amendment can reduce the amount of the accrued benefit.

Code section 411(d)(6) provides that the accrued benefit of a participant cannot be decreased by an

amendment (other than as permitted in Code section 412(c)(8)).

Again, presumably the only issue that could arise is presented by the fact that the Interest Based Credits for the period between the current year and the normal retirement age are based on an index. Thus, as has been observed, the estimated amount of the accrued benefit can go down from one year to the next. We do not see this possible reduction to be even arguably the result of a plan amendment. There is not even an implied amendment because the participant's right was to receive the indexed interest – not an estimate of the index. That right has not changed when the indexed rate changes.

e) The amount of the accrued benefit cannot be reduced on account of an increase in age or service.

Code section 411(b)(1)(G) provides that a participant's accrued benefit cannot be reduced "on account of any increase in his age or service".

Yet again, presumably the only issue that could arise is presented by the fact that the Interest Based Credits for the period between the current year and normal retirement age are based on an index. Thus, as has been repeatedly noted, the estimated amount of the accrued benefit can go down from one year to the next. We do not see this possible reduction of the estimated amount to be even arguably on account of an increase in age or service. We understand the "on account of" language to require that the proximate cause of the reduction must be an increase in age or service. Here the cause for the change in the estimated amount was the change in the indexed rate. While the change occurred coincident with an increase in age, the increase in age was not the cause of the decrease. During that same period the index (and, therefore, the estimated amount of the accrued benefit) could as well have increased.

f) The rate of benefit accrual cannot be reduced on account of attainment of any age.

Code section 411(b)(1)(H) provides that a defined benefit plan does not satisfy Code section 411 if "the rate of an employee's benefit accrual is reduced because of the attainment of any age".

We have heard representatives of the Service express concern that, because the benefits under cash balance plans are frontloaded, such plans may violate a literal reading of Code section 411(b)(1)(H).

Code section 411(b)(1)(H) was added by P.L. 99-509 to prevent defined benefit plans from ceasing or reducing the rates of benefit accruals at a specified age, such as the plan's normal retirement age. A restrictive application of Code § 411(b)(1)(H) to cash balance plans is not necessary to accomplish this legislative intent. If the rate of the Compensation Based Credit is not reduced as age increases, and if the rate of the annual Interest Based Credit is not reduced as age increases, the cash balance plan should not be viewed as violating Code section 411(b)(1)(H). Any differences in the rate of accrual occur because of differences in the annuity commencement date and number of years of participation in the plan, not because of attainment of any particular age. See Prop. Reg. § 1.411(b)-2(b)(3).

Notwithstanding the preceding argument, a number of practitioners believe that there is a very significant risk that the Service will ultimately take the view that it cannot avoid a literal interpretation of the statute. These same practitioners are, nevertheless, convinced that the Service will conclude that, as a policy matter, Format #1 type plans should not be viewed as violating Code § 411(b)(1)(H) and, therefore, would support a legislative fix. These practitioners believe that, with the Service's support, a legislative fix would be easy to obtain.

It is fair to state that we are not as optimistic as some practitioners appear to be regarding the likelihood of achieving a legislative fix that is adequate. First, practitioners that appear to be more optimistic assume that no policymaker will be hostile to cash balance plans. We hope that is the case. But we are concerned that some policymakers favor the accrual patterns of traditional defined benefit plans (that is, patterns that allocate more dollars to the long-service/end-of-career employee) and therefore will, in fact, be hostile to cash balance plans.

A second reason why we are less optimistic is because Code § 411(b)(1)(H) is an age discrimination provision and has a parallel ERISA provision. We see this as possibly impeding a retroactive legislative fix – if it is generally conceded that these plans literally violate Code section 411(b)(1)(H).

This brings us to an analysis of the exposure under Code section 411(b)(1)(H). It appears to us that most practitioners are of the view that the exposure is measured by the cost of bringing every participant in the plan up to the benefit accrual rate of the youngest participant. In given cases, actuaries have estimated a 4 to 5 times increase in plan liabilities.

Alternatively, it is possible that the exposure is measured with respect to each participant; that is, each participant would have to be brought up to his/her highest benefit accrual rate. Obviously, this

is a much smaller exposure, particularly for plans that have been in operation for only a few years.

g) The accrued benefit cannot be "backloaded" in violation of Code section 411(b)(1).

Code section 411(b)(1)(A),(B), and (C) impose tests on the rate at which benefits accrue in order to prevent excessive backloading.

The interest based credits included within the accrued benefit under Format #1 result in frontloading rather than backloading. Thus, the requirement of Code section 411(b)(1) is clearly met.

h) The normal form of benefit cannot violate Code section 401(a)(9).

Prop. Reg. § 1.401(a)(9)-1, F-3(a) provides that a life annuity under a defined benefit plan must be either non-increasing or increase only as permitted under F-3(a)(1) through (4). It appears that cash balance plans which provide that the increasing single life annuity is a 411(d)(6) protected benefit can satisfy the proposed regulation only if the interest rate factor for the increasing life annuity can be viewed as a "percentage increase in a specified and generally recognized cost-of-living index." We note that practitioners have, in general, defined the interest rate used to determine the annual increase as a "cost-of-living adjustment".

2. Requirements related to optional forms of benefits.

a) All forms of benefits must be based on actuarial factors that are definitely determinable and reasonable.

Code section 401(a)(25) and Reg. § 1.411(c)-1(e) require that optional forms of benefit be based on reasonable actuarial factors specified in the plan.

The interest rate used for actuarial equivalent calculations in Format #1 is the PBGC interest rate (Format #1, Sec. 7.01(a)(i); (b)(i) and (c)(i)). We understand that the Service accepts this rate as both definitely determinable and reasonable.

It should be noted that there is no mortality assumption for the pre-normal retirement age period when calculating optional forms of benefit that commence or are payable prior to normal retirement age (Format #1, Sec. 7.01(b)(ii) and (c)(i)). This unusual provision is related to the design of the lump sum option. The amount of the Cash Balance Account determined currently is the amount that, from a design perspective, should be paid out as the lump sum amount. In order to achieve this result, it is necessary to discount the accrued benefit to a current value using the same factors that were used to determine the accrued benefit. The interest rates thus "wash".

Since one of the optional forms of settlement (the QJ&S) must have an equivalent value to the lump sum (see discussion at "b" below), no mortality factor is used for the period prior to normal retirement age for any of the optional annuity forms.

b) A QJ&S benefit must be provided at any time any form of benefit payment is available and the QJ&S must be at least as valuable as any other form of benefit offered at that time:

Regulation § 1.401(a)-20, Q&A 17, requires that a participant in a defined benefit plan be permitted to commence a qualified joint and survivor annuity at any time the participant could otherwise receive a distribution from the plan in another form. Regulation § 1.401(a)-11(b)(2) further requires that a defined benefit plan provide a qualified joint and survivor annuity which is at least the actuarial equivalent, based on reasonable actuarial factors, of the normal form of benefit under the plan, or any optional form of greater value.

The Format #1 plan meets this requirement because all forms of annuity benefit are offered at the same time as is any other form of benefit (*i.e.*, lump sum) and because the same actuarial factors are used to determine the present value of all benefit options (both annuity form and the lump sum form).

At this point, it should be noted that if the participant elects to receive any form of benefit that commences before his/her normal retirement age, the rate of interest used under Format #1 for the period between the current year and normal retirement age is the PBGC immediate interest rate. (See the discussion in "c" below for an explanation of why this provision was added.) In any event, if the participant had not elected an early commencement or payment, he/she would have been entitled to be credited with the Treasury bill rate. Historically, the Treasury bill rate has been higher than the PBGC rates. (See Appendix B for a 10 year rate comparison). We do not believe that the use of the presumably lower interest rate if the participant elects early commencement or payment violates any applicable qualification requirement:

- The reduction is not a violation of the definitely determinable requirement. The employer has no control over whether the reduction occurs. The reduction is solely within the control of the participant.

HILL & ROBBINS, P.C.
ATTORNEYS AT LAW
100 BLAKE STREET BUILDING
1441 EIGHTEENTH STREET
DENVER, COLORADO 80202-1256

DAVID W. ROBBINS
ROBERT F. HILL
DENNIS M. MONTGOMERY
RONALD L. WILCOX
JOHN H. EVANS
MARK J. WAGNER
JOHN F. WALSH
JENNIFER H. HUNT
LAURA J. DONSON

Of Counsel
AVI S. ROCKLIN

TELEPHONE
303 296-8100

FACSIMILE
303 296-2388

E-MAIL
webmaster@hillandrobbins.com

WEBSITE
www.hillandrobbins.com

FACSIMILE TRANSMITTAL

FAX ORIGINATOR'S INITIALS: pam

	NAME	*COMPANY*	*FACSIMILE NUMBER*
TO:	Warren Gunnels	Office of Congressman Bernie Sanders	202-225-6790

DATE: January 29, 2003 *TIME:* *HR CASE #:*

FROM: John Evans *NUMBER OF PAGES:* 19

MESSAGE: Bill Carr asked me to send this to you.

Hard Copy ☐ will ☒ will not follow in the mail.

Please Call 303.296.8100 if you do not receive all pages.

CONFIDENTIALITY NOTICE

The documents accompanying this FACSIMILE transmission may contain confidential information which is legally privileged. This information is intended only for the use of the individual or entity named above. If you are not the intended recipient, or the person responsible for delivering it to the intended recipient, you are hereby notified that any disclosure, copying, distribution or use of any of the information contained in this transmission is strictly PROHIBITED. If you have received this transmission in error, please immediately notify us by telephone and mail the original transmission to us.
Thank you.

FAX ORIGINATOR'S INITIALS: pam

* * * COMMUNICATION RESULT REPORT (JAN. 29. 2003 2:43PM) * * *

TTI HILL AND ROBBINS

FILE	MODE	OPTION	ADDRESS (GROUP)	RESULT	PAGE
3926	MEMORY TX		12022256790---414	OK	19/19

REASON FOR ERROR
E-1) HANG UP OR LINE FAIL
E-2) BUSY
E-3) NO ANSWER
E-4) NO FACSIMILE CONNECTION

HILL & ROBBINS, P.C.
ATTORNEYS AT LAW
100 BLAKE STREET BUILDING
1441 EIGHTEENTH STREET
DENVER, COLORADO 80202-1256

DAVID W. ROBBINS
ROBERT F. HILL
DENNIS M. MONTGOMERY
RONALD L. WILCOX
JOHN H. EVANS
MARK J. WAGNER
JOHN F. WALSH
JENNIFER H. HUNT
LAURA J. DONSON

Of Counsel
AVI S. ROCKLIN

TELEPHONE
303 296-8100

FACSIMILE
303 296-2388

E-MAIL
webmaster@hillandrobbins.com

WEBSITE
www.hillandrobbins.com

FACSIMILE TRANSMITTAL

FAX ORIGINATOR'S INITIALS: pam

	NAME	COMPANY	FACSIMILE NUMBER
TO:	Warren Gunnels	Office of Congressman Bernie Sanders	202-225-6790

DATE: January 29, 2003 TIME: HR CASE #:

FROM: John Evans NUMBER OF PAGES: 19

Internal Revenue Service

District Director

July 28, 1997

David C. Wright
Onan Corporation
P.O. Box 3005
Columbus, IN 47202

Department of the Treasury
P. O. Box 2508
Cincinnati, Ohio 45201

Person to Contact:
Andrew J. Fedders
Telephone Number:
513-684-3347
Refer Reply to:
EP/EO:7125
Required Response Date:
August 28, 1997

Dear Sir:

We are going to request technical advice from the National Office regarding the Onan Corporation Pension Plan (#020).

Enclosed is a statement of the pertinent facts and questions that we propose to send to the National Office. Please indicate in writing the extent, if any, to which you are not in agreement with the facts as stated. We will send your comments to the National Office with our request for technical advice.

Since this relates to the qualification of a plan or the tax exemption of the related trust, the request will be open for public inspection under Code section 6104. If we need a statement concerning deletions, we will request it under separate cover.

You are entitled to a conference in the National Office if an adverse decision is indicated. Please let us know whether you desire such a conference.

Please send your reply and any applicable statements to the address shown below by the required response date.

Thank you for your cooperation.

Sincerely yours,

Andrew J. Fedders
Employee Plans Specialist

Enclosure:
Statement of Issues, Law and Position

Letter 1399(DO)

Statement of Issues, Law and Position

Issues

1. Since the Plan provides for a decreasing rate of benefit accrual as an employee attains higher ages does it fail to satisfy section 411(b)(1)(H)(i) of the Code?

2. Since the Plan is a backloaded interest credit cash balance plan can a favorable determination letter be issued? If yes, what standards must the backloaded interest credit formula satisfy before a favorable determination letter can be issued?

3. Does the component of this Plan identified on Demo 8 as "the portion of the Plan that covers employees that participated in this Plan and the Onan Profit Sharing Plan" and the Onan Profit Sharing plan benefit the same employees?

4. Does the Plan satisfy any of the accrual rules of section 411(b)?

5. Does the Plan, which is a floor offset plan, satisfy the 133 1/3 percent accrual rule since it is possible for a potential plan participant to have an accrual of zero percent in a particular year and have an accrual higher than zero in a subsequent year?

6. Can this Plan determine that it satisfies the 133 1/3 percent accrual rule by assuming that each plan participant terminates service at the end of each year?

7. Can this Plan assume that the profit sharing offset amount will increase at the stated rate of 7 percent per year and satisfy the applicable actuarial equivalence requirements?

8. Can this plan provide that its benefits are offset by the terminated Onan Profit Sharing Plan and satisfy the requirements of Rev. Rul. 76-259?

9. What is the accrued benefit under section 411 for this floor offset plan? Is it the benefit provided by the plan formula not including the amount provided by the defined contribution plan or is it the benefit provided by the plan formula including the amount provided by the defined contribution plan?

10. Can this cash balance plan be offset by another plan and satisfy the applicable requirements regarding the determination of an employee's hypothetical account?

11. Does the terminated Onan Profit Sharing Plan satisfy the uniform allocation safe harbor in section 1.401(a)(4)-2(b)(2) of the Regulations as required by section 1.401(a)(4)-8(d)(1)(vi)?

12. The general test for nondiscrimination for this plan (Demo 6) was performed using the assumption that all employees terminate from service at the end of each plan year and are credited with the inactive interest rate. Is such an assumption reasonable?

Facts

On January 1, 1976 the Onan Corporation, hereafter "Employer", established the Onan Pension Plan, a defined benefit pension plan. The Onan Pension Plan provided a benefit formula of 50 percent of average compensation minus 50 percent of the participants social security benefit times the ratio of completed years of service to 30 and then offset by the amount of retirement benefit provided from the Onan Profit Sharing Plan. Both the Onan Pension Plan and Onan Profit Sharing Plan operated concurrently through 1988. Effective January 1, 1989 the Onan Pension Plan was amended and became known as the Onan Corporation Pension Plan, hereafter "Plan", and became a backloaded interest credit cash balance plan which contains a floor offset arrangement that includes the Onan Profit Sharing Plan. Contributions to the Onan Profit Sharing Plan were ceased, or frozen, as of January 1, 1988. The benefit accrued under the Onan Pension Plan formula, net of the profit sharing offset, is preserved in the Plan.

The Plan was submitted to the Service with an application for a favorable determination letter.

The Plan's benefit formula provides for a hypothetical pay-based credit of 2.50 percent of eligible compensation not in excess of Social Security covered compensation plus 4.25 percent of eligible compensation in excess of Social Security covered compensation. The Plan further provides for an interest credit that is, for an employee that does not receive a pay-based credit, equal to the average of one-year Treasury bill and 30-year U.S. government bond yields for the immediately preceding October 1 through September 30 and, for an employee that receives a pay-based credit, equal to the sum of the amount payable to an employee that does not receive a pay-based credit and 2.25 percent.

The application stated that the plan is part of a floor offset arrangement that is intended to satisfy the safe harbor in section 1.401(a)(4)-8(d) of the regulations. The Demo 8 states that the plan satisfies the applicable requirements after it is restructured into two component plans. One component plan for employees that participated in the Plan and the Onan Profit Sharing Plan and another component plan for participants in the Plan that did not participate in the Onan Profit Sharing Plan.

The Demo 8 also states that the plan as a whole passes the general test and further provides that the Onan Profit Sharing Plan satisfies the uniform safe harbor allocation in section 1.401(a)(4)-2(b)(2) because that plan does not have any contributions to allocate.

The attachment to line 13 of the application states that the Plan satisfies section 411(b) of the Internal Revenue Code of 1986 by virtue of satisfying the 133.33 percent test and several examples are provided. Each of the examples tests the accruals for each year using the assumption that the employee terminates service at the end of each year.

In performing the general test for nondiscrimination under section 1.401(a)(4)-3(c) the Employer assumes that each employee terminates service at the end of each plan year.

For purposes of determining the actuarial equivalent of the benefit provided by the Onan Profit Sharing Plan, the Plan provides that the benefit will be accumulated with the interest rate of 7 percent compounded annually. For purposes of determining the benefit provided by the prior benefit formula the

plan provides that the PBGC interest rate will be used and for most other purposes the actuarial equivalence rate is the average of one-year Treasury bill and 30-year U.S. government bond yields for the preceding October 1 through September 30.

Law

Section 1.401(a)(4)-8(c)(3)(i) provides, as a general rule, that a cash balance plan is a defined benefit plan that defines benefits for each employee by reference to the employee's hypothetical account. An employee's hypothetical account is determined by reference to hypothetical allocations and interest adjustments that are analogous to actual allocations of contributions and earnings to an employee's account under a defined contribution plan. Because a cash balance plan is a defined benefit plan, whether it satisfies section 401(a)(4) with respect to the equivalent amount of contributions is generally determined under paragraphs (c)(1) and (c)(2) of this section.

Sections 1.401(a)(4)-8(c)(1) and (2) provide as follows:

(c) Nondiscrimination in amount of contributions under a defined benefit plan -- (1) General rule. Equivalent allocations under a defined benefit plan are nondiscriminatory in amount for a plan year if the plan would satisfy section 1.401(a)(4)-3(c)(1) (taking into account section 1.401(a)(4)-3(c)(3)) for the plan year if an equivalent normal and most valuable allocation rate, as determined under paragraph (c)(2) of this section, were substituted for each employee's normal and most valuable accrual rate, respectively, in the determination of rate groups.

(2) Determination of equivalent allocation rates -- (i) Basic definitions. An employee's equivalent normal and most valuable allocation rates for a plan year are, respectively, the actuarial present value of the increase over the plan year in the benefit that would be taken into account in determining the employee's normal and most valuable accrual rates for the plan year, expressed either as a dollar amount or as a percentage of the employee's plan year compensation.
ii) Rules for determining actuarial present value. The actuarial present value of the increase in an employee's benefit must be determined using a standard interest rate and a standard mortality table, and no mortality may be assumed prior to the employee's testing age.

Section 1.401(a)(4)-12 of the Regulations provides that an amount or benefit is the actuarial equivalent of, or is actuarially equivalent to, another amount or benefit at a given time if the actuarial present value of the two amounts or benefits (calculated using the same actuarial assumptions) at that time is the same. Such section also provides that actuarial present value means the value as of a specified date of an amount or series of amounts due thereafter, where each amount is - (1) multiplied by the probability that the condition or conditions on which payment of the amount is contingent will be satisfied; and (2) discounted according to an assumed rate of interest to reflect the time value of money.

Section 1.401(a)(4)-1(c)(4)(iii) of the Regulations provides that a plan may be restructured into component plans, in accordance with the provisions of section 1.401(a)(4)-9(c), in any manner as long as every employee is included in one and only one component plan. Each component plan must satisfy the

requirements of sections 401(a)(4) and 410(b). The restructuring provisions apply solely for purposes of determining whether the plan satisfies section 401(a)(4).

Section 1.401(a)(4)-3(d)(2)(ii) of the Regulations provides that the determination of potential plan benefits is not reasonable if it incorporates an assumption that, in future years, an employee's compensation will increase or the employee will terminate employment before the employee's testing age.

Section 1.410(b)-3(a)(1) of the Regulations states that except as provided in paragraph (a)(2) of this section, an employee is treated as benefiting under a plan for a plan year if and only if for that plan year, in the case of a defined contribution plan, the employer receives an allocation taken into account under section 1.401(a)(4)-2(c)(2)(ii), or in the case of a defined benefit plan, the employee has an increase in a benefit accrued or treated as an accrued benefit under section 411(d)(6).

Section 1.410(b)-3(a)(2)(iii) of the Regulations provides that an employee is treated as benefiting under a plan for a plan year if the employee satisfies all of the applicable conditions for accruing a benefit or receiving an allocation for the plan year but fails to have an increase in accrued benefit or to receive an allocation solely because the plan offsets the employee's current benefit accrual under an offset arrangement described in section 1.401(a)(4)-3(f)(9) (without regard to whether the offset is attributable to pre-participation service or past service).

Section 401(a)(7) of the Code provides that a trust shall not constitute a qualified trust under this section unless the plan of which such trust is a part satisfies the requirements of section 411.

Section 411(a)(7) of the Code provides that the term accrued benefit means, in the case of a defined benefit plan, the employee's accrued benefit under the plan expressed in the form of an annual benefit commencing at normal retirement age.

Section 411(a) of the Code provides, in part that a trust shall not constitute a qualified trust unless the plan satisfies, in the case of a defined benefit plan, the requirements of section 411(b).

Section 411(b) of the Code sets forth accrued benefit requirements including the 133 1/3 percent rule of section 411(b)(1)(B) which provides that a defined benefit plan satisfies the requirements of this paragraph for a particular plan year if under the plan the accrued benefit payable at the normal retirement age is equal to the normal retirement benefit and the annual rate at which any individual who is or could be a participant can accrue the retirement benefits payable at normal retirement age under the plan for any later plan year is not more than 133 1/3 percent of the annual rate at which he can accrue benefits for any plan year beginning on or after such particular plan year and before such later plan year. For purposes of this subparagraph--

- (i) any amendment to the plan which is in effect for the current year shall be treated as in effect for all other plan years;
- (ii) any change in an accrual rate which does not apply to any individual who is or could be a participant in the current year shall be disregarded;
- (iii) the fact that benefits under the plan may be payable to certain employees before normal retirement age shall be disregarded; and
- (iv) social security benefits and all other relevant factors used to compute benefits shall be treated as remaining constant as of the current year

for all years after the current year.

Section 1.411(b)-1(b)(2) of the Regulations provides that a plan satisfies the 133 1/3 percent rule for a particular plan year if (A) under the plan the accrued benefit payable at normal retirement age (determined under the plan) is equal to the normal retirement benefit (determined under the plan), and (B) the annual rate at which any individual who is or could be a participant can accrue the retirement benefits payable at normal retirement age under the plan for any later plan year cannot be more than 133 1/3 percent of the annual rate at which he can accrue benefits for any plan year beginning on or after such particular year and before such later plan year.

Section 411(b)(1)(H)(i) of the Code provides that a defined benefit plan shall be treated as not satisfying the requirements of this paragraph if, under the plan, an employee's benefit accrual is ceased, or the rate of an employee's benefit accrual is reduced, because of the attainment of any age.

Notice 1996-8 (1996-1 C.B. 359) provides in section III A., in part, that under a cash balance plan, the retirement benefits payable at normal retirement are determined by reference to the hypothetical account balance as of normal retirement age, including benefits attributable to interest credits to that age. Thus, benefits attributable to interest credits must be taken into account in determining whether the accrual of the retirement benefits under a cash balance plan satisfies one of the rules in section 411(b)(1)(A), (B) or (C). Moreover, benefits attributable to interest credits are in the nature of accrued benefits within the meaning of section 1.411(a)--7(a), rather than ancillary benefits, and thus, once accrued, must become nonforfeitable in accordance with a vesting schedule that satisfies section 411(a).

Cash balance plans can be categorized based on when the benefits attributable to interest credits accrue. Under one type of cash balance plan (referred to in this notice as a front-loaded interest credit plan), future interest credits to an employee's hypothetical account balance are not conditioned upon future service. (Of course, benefits attributable to future interest credits may be forfeited in accordance with the plan's vesting provisions, to the extent permitted under section 411.) Thus, in the case of a frontloaded interest credit plan, the benefits attributable to future interest credits with respect to a hypothetical allocation accrue at the same time that the benefits attributable to the hypothetical allocation accrue. As a result, if an employee terminates employment and defers distribution to a later date, interest credits will continue to be credited to that employee's hypothetical account.

A second type of cash balance plan (referred to in this notice as a back-loaded interest credit plan) conditions future interest credits upon further service. In the case of a backloaded interest credit plan, benefits attributable to interest credits do not accrue until the interest credits are credited to the employee's account. Because backloaded interest credit plans typically will not satisfy any of the accrual rules in section 411(b)(1)(A), (B) or (C), it is anticipated that the proposed guidance will address only frontloaded interest credit plans.

Notice 1996-8 provides in section III B. 2. that in the case of a frontloaded interest credit plan, a single sum distribution optional form of benefit equal to the hypothetical account balance will satisfy section 417(e) only if the single sum distribution is not less than the present value of the employee's accrued benefit calculated in accordance with the applicable interest rate and mortality table under section 417(e)(3).

Notice 1996-8 provides in section IV B., in part, that for plan years beginning before the regulations are effective, a frontloaded interest credit plan would not be disqualified for failing to satisfy section 411(a) or 417(e) if the amount of the distribution satisfied those sections based on a reasonable, good-faith interpretation of the applicable provisions of the Code, taking into account pre-existing guidance. For this purpose, plans that comply with the guidance in this notice are deemed to be applying a reasonable, good faith interpretation.

Revenue Ruling 76-259, 1976-2 C.B. 111, provides that a defined benefit plan that provides a stated benefit offset by the benefits provided by a concurrently operating profit-sharing plan will not fail to satisfy the requirements of section 401 of the Code after September 2, 1974, merely because of the offset provision.

The purpose of this Revenue Ruling is to (1) reconsider the position set forth in Rev. Rul. 69-502, 1969-2 C.B. 89, in light of the Employee Retirement Income Security Act of 1974 (ERISA), P.L. 96-406, 1974-3 C.B. 1, and (2) provide guidelines as to how the accrued benefits of a defined benefit plan that are offset by the benefits of a defined contribution plan should be tested to determine whether the accrued benefit requirements of section 411(b) of the Internal Revenue Code of 1954 are satisfied.

Rev. Rul. 69-502 considers an arrangement whereby the employer establishes a profit-sharing plan intended to be qualified under section 401(a) of the Code and also establishes a defined benefit plan which provides a stated benefit offset by the benefits provided by the profit-sharing plan.

It is the position of the Service that under subchapter D of chapter 1 as amended by ERISA an arrangement described in Rev. Rul. 69-502 does not fail to satisfy the requirements of section 401 of the Code after September 2, 1974, the date of enactment of ERISA, merely because of the type of such arrangement.

Revenue Ruling 76-259 also provides that an accrued benefit will be deemed to satisfy the requirements of section 411(b)(1) of the Code if the accrued benefit under the defined benefit plan determined without regard to the offset derived from the profit-sharing plan satisfies the requirements of section 411(b)(1) of the Code.

Government's Position

1. This plan does not satisfy the clear and straightforward requirement of section 411(b)(1)(H)(i) of the Code because the plan's benefit accrual rate decreases as a participant attains each additional year of age.

2. A favorable determination letter cannot be issued for this plan since it is a backloaded interest credit plan and cannot satisfy any of the accrual rules of section 411(b)(1)(A), (B) or (C) as stated in section III. A. of Notice 96-8.

3. The component of this Plan identified as "the portion of the Plan that covers employees that participated in this Plan and the Onan Profit Sharing Plan" does not satisfy the requirement of section 1.401(a)(4)-8(d)(i) because no employees benefit under the Onan Profit Sharing Plan. Section 1.410(b)-3(a)(2)(iii) of the Regulations requires that an employee must receive an allocation under a defined contribution plan to be considered to benefit under the plan for a plan year. Such regulation also provides an exception for benefit offset arrangements but that exception only applies to the plan under which benefits are offset, not to the plan that is used as an offset under another plan.

4. This plan does not satisfy any of the accrual rules of section 411(b).

5. A floor offset plan cannot satisfy the 133 1/3 percent accrual rule because a participant may have an accrual of zero percent for a particular plan year and subsequently have an accrual. Any accrual will be greater than 133 1/3 percent of zero.

6. This plan cannot test for compliance with the 133 1/3 percent rule by assuming that every participant terminates at the end of every year of service and is thus credited with the "inactive" interest credit instead of the higher "active" interest credit. Section 411(b) requires that the accrued benefit under the plan satisfy the accrual rule and the accrued benefit is the benefit under the Plan which, for an active participant, would be the accrued benefit determined without the assumption that the participant terminates each and every year.

7. This plan does not satisfy the applicable actuarial equivalence requirements because it uses a 7 percent per year interest assumption to grow the offset amount while it uses a generally lower amount to determine to the interest credits for active and inactive participants and to determine the amount of benefit that will be paid from the plan at retirement. It is not reasonable or actuarially equivalent for the same time period to have two different values.

8. This plan cannot provide benefits that are offset by the terminated Onan Profit Sharing Plan and satisfy Rev. Rul. 76-259. The Rev. Rul. addresses only a situation where a defined benefit plan and a defined contribution plan are established at the same time and operated during the same period which is not the case here. No precedent has been established for the offsetting the accrued benefit under a defined benefit plan with the amount due or projected from a terminated defined contribution plan.

9. The accrued benefit for purposes of section 411(b) is the benefit defined by section 411(a) which is the retirement benefit provided by this Plan not including the amount provided by the defined contribution plan. The offset amount is the accrued benefit of a separate plan and is not part of the accrued benefit under this plan. It is important to note that this Plan protects, in order to satisfy section 411(d)(6), the benefit accrued under the prior formula. The benefit protected is the net benefit; the accrued benefit under the prior defined benefit formula not including the defined contribution plan. Because the accrued benefit is the amount provided by the defined benefit plan, this plan cannot pass the 133 1/3 percent test since for some years no benefit is provided by the defined benefit plan and in subsequent years a greater benefit will be accrued.

10. This cash balance plan cannot be offset by another plan and satisfy the requirements of section 1.401(a)(4)-8(c)(3) of the Regulations and section II.

Author: Bill Sweetnam at Finance
Date: 12/22/98 4:45 PM
Priority: Normal
TO: Stan Fendley at Minority:finance, Diann Howland at Jeffords-DC,
Liz Liess at Aging-Committee, Maria Freese at Baucus-DC, Bob Greenawalt at Chafee-DC,
Russ Sullivan at Graham-DC, Steve Bailey at Conrad_DC
Subject: More on Cash Balance Plans

Yesterday, I made a misstatement when I talked about how cash balance plans are more financially advantageous to employers than traditional final average earnings plans. I stated that it was primarily because it cost less to fund them. I talked to an actuary at my old firm and he said that I was wrong. The primary reason that cash balance plans are financially advantageous is the accounting treatment of cash balance plans versus final average earnings plans. (Liz was right.) With final average earnings plan, you must book as a liability on your financial statements the value of pension benefit assuming future earning growth for participant's benefit. With a cash balance plan, you don't have to include future earnings growth -- you only have to book your current liability for account balances. This reduces the liability in all circumstances -- even if the plan grandfathers the old final average earnings benefit for older workers. So the reason that cash balance plans are better is that they make the corporations financial statement look better since pension liabilities are less.

Call or e-mail me with any questions.

Bill

RECORD OF SOCIETY OF ACTUARIES
1986 VOL. 12 NO. 1

THE BETTER ALTERNATIVE? -- DEFINED BENEFIT OR DEFINED CONTRIBUTION RETIREMENT PLANS

Moderator: F. JAY LINGO
Panelists: LARRY LANG
ERIC P. LOFGREN
Recorder: MICHAEL ROBERT RAHN

The pros and cons of both types of plans will be debated. Employer and employee objectives, and which ones each type of plan meets, will be highlighted. A discussion of the range of hybrid plans also will be included.

MR. F. JAY LINGO: I'm with Touche Ross & Co. of Minneapolis, Minnesota. Our primary purpose is to take a look at Defined Benefit and Defined Contribution Plans, first from a traditional standpoint and then at some of the hybrid approaches being used these days.

I would like to introduce our panel members. Larry Lang is an actuarial consultant with The Wyatt Company in Dallas. He has written several articles for such publications as *Pension World* and the *Journal of Pension Planning and Compliance*. Larry will summarize a case study that he has put together for one of his clients who was considering terminating a defined benefit plan and setting up a defined contribution plan. His work involved putting some quantitative projections on the values under the current defined benefit plan and defined contribution plan that I think you will find interesting. Eric Lofgren is with Mercer-Meidinger in New York. Eric is a consulting actuary and principal with the firm, and his responsibilities include providing actuarial services and account management to many of Mercer's larger clients in the New York area.

I would like to spend a few minutes outlining the results of a study that we did for purposes of measuring the variability of replacement ratios on a historical basis of some sample defined contribution and defined benefit plans. The study was not particularly concerned about the specific level of benefits because we chose random benefit formulas in the defined contribution and defined benefit areas. We were more concerned with the variability of replacement ratios that resulted over a 10 year period of time. I think that this study, at least to a certain extent, put some quantitative teeth in the argument that defined contribution plans, when used as a sole retirement vehicle, may not be the best in terms of providing adequate retirement benefits to retirees or assuring that adequate benefit levels will be provided. As a corollary to that, when providing adequate benefits is a primary objective of plan sponsors, defined contribution plans may not be the most cost effective or cost efficient way in which an employer can provide retirement benefits. It is important to keep in mind that there are many objectives involved in setting up retirement plans, and some of these lead away from defined benefit plans and may lead to the use of defined contribution plans.

In performing this study there were certain assumptions that we made that are important to keep in mind. We looked at 10 employees who retired at age 65 over a 10 year period, beginning on 1/1/76, then 1/1/77 and so on, through 1/1/85. We assumed that each of the individuals had 30 years of service at retirement, and the final annual salary of each of these individuals was equal to $30,000. For purposes of the defined contribution plan, we had to make some assumptions with respect to historical rates of investment return. We used two alternatives. First, we assumed that investments were made in the S&P 500 stock index and used the total return approach assuming investment income or dividends were re-invested. Second, we used the Salomon Brothers Bond Index, again assuming that dividends were re-invested, as another measure of investment return over those 30 year periods. With respect to historical rates of salary increases for these particular individuals, we used the average increase in Social Security wages from one year to the next. We used PBGC immediate annuity rates at age 65 that were in effect at each retirement date to convert defined contribution balances to annual benefit amounts.

THE BETTER ALTERNATIVE?

The following benefit formulas were used in the study. For the defined contribution plan, the contribution formula was equal to 7.5% of annual compensation. We looked at two different defined benefit formulas. The first was a 50-50 offset plan; the second was a non-integrated plan, 1.5% times years of service times final average salary. Both defined benefit formulas used a 5 year final average salary basis.

With this background in mind, let's look at the numbers we came up with. It is important to note that Table 1 does not include Social Security benefits. These are retirement plan formula benefits only.

TABLE 1

REPLACEMENT RATIOS

Without Social Security

Formula	*Range*	*Mean*	*Standard Deviation*	*Variability Factor**
DC				
o S&P 500	43-56%	49%	4.59%	.09
o Salomon Bros.	21-27	24	2.45	.10
DB-Offset	28-37	32	3.38	.11
DB	38-41	39	.87	.01

*Standard Deviation Divided by Mean

On the DC side, over a 10 year period, using the S&P 500, we found that the replacement ratios range from 43 to 56%. With a mean of 49% and a standard deviation of 4.59%. We computed a variability factor by dividing the standard deviation by the mean. This is something we did to normalize the comparison. You can see that the salary replacement ratio ranges varied somewhat as you went from the DC plan to the DB plan and from one investment return basis to another. For instance, based on the S&P 500, which had the highest replacement ratio range, you would expect some wider standard deviations than you would for the Salomon Brothers basis. Replacement ratios were lower simply because of

the investment rates of return involved. So we came up with the variability factor to make our comparison more valid. You can see that the variability factors range down from 9% for the DC plans to as low as 2% on the non-integrated DB plan. What's happened with the DB offset plan is that because we've used a constant final salary of $30,000 a year over the 10 year period, the Social Security benefits have actually replaced a higher percentage of that $30,000 as you move from 1/1/76 through 1/1/85, and as a consequence the actual DB benefit has decreased. There was a relatively smooth progression, I believe, of the replacement ratios on that DB plan from 37% down to about the 28% level over that period of time. If you were to add Social Security benefits payable at age 65 into those replacement ratios (Table 2), what you would find is that except for the DB offset plan, those variability factors on the right side either stayed level or increased, whereas the DB offset variability factor almost halved, down to about 5%.

TABLE 2

REPLACEMENT RATIOS

Without Social Security

Formula	*Range*	*Mean*	*Standard Deviation*	*Variability Factor**
DC				
o S&P 500	63-82%	72%	6.21%	.09
o Salomon Bros.	35-55	46	7.19	.16
DB-Offset	50-59	55	2.74	.05
DB	52-69	62	5.60	.09

*Standard Deviation Divided by Mean

In summary, these numbers quantify the fact that, to the extent you are comfortable with the assumptions that went into the study, there is more variability on a defined contribution plan than on the DB side, particularly when you look at non-integrated DB plans.

THE BETTER ALTERNATIVE?

MR. LARRY LANG: What I will try to do is to give the big picture on the basic qualitative differences between our traditional defined benefit plan and the traditional defined contribution plan. I'm not going to get into a lot of detail, because Eric will talk with you at some length about the variations between these two extremes.

Which one is better? Of course, that depends on the client that you are dealing with and the company objectives, desired funding flexibility, employee characteristics (is it a young group or are there high paid, older executives who need to be attracted into the workforce?), investment risk tolerance for both the employer and the employee, inflation risk tolerance and perceived versus actual value in relation to the employee group.

Let's talk about some of the basic qualitative differences of a DB versus a DC plan. Defined benefit plans define income versus contributions from the DC plan. They generally distribute money, or most of the money, to people age 55 and over versus under age 55 for the DC plan. With respect to employee appeal, DB plans generally have appeal for an older, long service group versus younger short service employees, who seem to prefer DC plans. With respect to investment risk, this is borne by the employer under a DB plan versus the employee under a DC plan. The size of what I call a severance benefit tends to be very small under a DB plan and large or substantial under a DC program. Understandability is generally somewhat more difficult under a DB versus the DC Flexibility to solve new retirement problems overnight, I think, is one area where the DB plan has an overriding advantage over the DC program, which really is unable to do that. DB vesting schedules are somewhat slower versus faster under the DC plan. Funding flexibility offers a range under a DB and really no range at all under a DC plan, except to the extent that the benefits themselves are varied on a year to year basis. Let me also add two other items. One is expensing. I think in light of FASB 87-88, there now are two numbers to become concerned with under a DB plan versus just one for a DC plan. The second factor may be the activities in Washington. I think as we listened to Dallas Salisbury at the Business Section and Luncheon we got the sense that the pendulum is starting to swing back in the direction of the DB program.

With that behind us, let's look at an actual case study for one of my clients. In this situation the client was giving serious consideration to terminating the DB plan and moving on to a DC program. Calling it the Ultimate Widget Company, this was a 5 year old U.S. subsidiary of a multi-national company. There were 90 participants, with $3.15 million in covered payroll, average pay of $35,000, average age of 33.8, and average service of 2.4 years. The benefit formula was 60% of pay less 60% of Social Security with 30 years required. Vesting was 4-40, normal form was life only, and age 65 was the normal retirement age. For early retirement at age 55 and 10 years of service, there was a subsidy using the standard 1/15, 1/30 factors. Death and disability benefits were equal to the value of retirement benefits. In the actual study the interest rate used for option factors was fixed at 8%, and what I discovered was that there was very little sensitivity to inflation and other factors that we will discuss. I decided for this study to vary the interest rate from year to year based upon the market interest rate and tied it to investment assumptions that we will be considering. I think it is consistent with Jay's remarks that you need to have something reflective of current market conditions in order to have a fair comparison of the two plans. With respect to the funding method, I looked at both the Entry Age Normal and the Projected Unit Credit methods with the objective not being to find the funding cost, but rather a cost such that over time it would build up a benefit security ratio (BSR) not much more than 100%. I should point out here that the results that I have obtained are clearly on the conservative side, favoring the defined contribution plan. I'll show you that in a minute. I came up with a range of funding costs of 3.5% to 5.1% under the two methods. I settled on 4% because I thought it was credible with the client, but I feel I probably could have justified a lower percentage based upon the objective of producing BSRs in the range of 100%.

Having established the current program, let's look at the proposed program -- that is, to terminate the DB plan, use the resulting lump sum values as starting account balances in the new program, and annually contribute 4% of pay (this was deemed to be the long term cost of the DB plan, so from the employer's standpoint the same amount of money is going into either program). What then happens to the individuals as far as their projection of benefit values?

A forfeiture assumption was added so that by the 6th year participants are adding onto their contribution an additional 0.5% of pay for a total of 4.5% into their accounts. We then created three sample individuals to look at, Fastback, Lowcareer and Young. Fastback is fairly highly paid, short service, relatively young. Lowcareer is a bit older, longer service and not as well compensated; and Young is an entry level individual. With respect to the assumptions used, obviously inflation drives both the wage assumptions and the investment assumptions. Wage assumptions include the salary scale, Social Security increases, and 415 benefit limit increases. Investment assumptions include here both the interest rate and the earnings credited to the defined contribution plan.

A range of 16 assumption sets was actually studied, and if we had enough time, they could have been talked about today. It makes more sense, however, to focus in on just a few of these assumption sets and allow ourselves to test sensitivity to changes in inflation and, separately, test sensitivity to changes in the spread factor. So we will use a 9% interest assumption, 6% as a wage increase assumption, a 3% spread, and 4% inflation. We will then look at 8% inflation that bumps the interest assumption up to 13% and the wage increase assumption to 10%, and we will also look at a 1% spread at the 4% inflation level that bumps it down to 7%, 6%.

We're almost there, but I have two ratios to define. The Relative Value Ratio is simply the ratio of the DB plan value to the DC plan value at any age. The Ultimate Value Ratio is determined by first calculating the lump sum value of all plans at age 65, determining the largest amount for all competing plans and then dividing that amount into the stream of benefit values for each competing plan. As you see, this normalizes the results so that the strongest plan at age 65 has a value of 100%.

With Fastback, prior to age 55, as we might expect, the DC has a substantial advantage over the DB plan. By the time Fastback reaches age 65 the relationships flip so that the ratio approaches 200%. At age 55, because of the early retirement subsidy, there is a substantial pop-up in the benefit value. A second pop-up at age 60 is due to the early retirement factor changing from 1/30 to 1/15. Now let's consider sensitivity to inflation; there is an inverse

relationship. As you increase inflation, the defined benefit plan becomes less competitive. It keeps its advantage beyond 55 but is not quite as dramatic.

Lowcareer has a very similar pattern, but the slope is not quite as acute. The advantage of the DC prior to 55 is not quite as great, nor is the advantage of the DB at age 65 as great. Sensitivity, of course, is the same. As we pointed out, the inverse relationship here is due to the selection of an option factor that is related to the interest credited to the earnings. As that interest rate increases, of course, the value of the defined benefit decreases.

Young has a different pattern. Because of her low salary in a non-integrated DC plan, she is better off at all ages under the DC plan. This is further enhanced by higher inflation levels.

Now let's consider sensitivity to spread with the ultimate value ratio. Here the results are different. It is true, of course, that prior to 55 the DC plan is ahead of a DB plan. However, the amount of that advantage turns out to be relatively small when you put it on a scale of what the ultimate lump sum values will be. For example, between age 55 and 65, well over 80% of the ultimate lump sum value is earned by Fastback. Incidentally, there is a real Fastback and after seeing this information he just might keep his defined benefit plan. As for sensitivity to spread, as you decrease the spread, you increase the competitiveness of the DB plan. Lowcareer has a similar pattern that I won't talk about in any great detail. Young has a DC plan more competitive for all ages, but if you pick the assumptions right, there is a certain point in time where it can cross. And it does at about age 60 in this instance.

Let's summarize some of the observations with respect to this particular study. I don't offer these as general conclusions. However, I think you will find the observations agreeable with what we would expect from these two programs. Generally, the defined contribution plan appears better prior to age 55 and the DB plan better after age 55. For higher paid people this DB advantage continues to improve. For low paid individuals, it can turn out that the DC plan is better at all ages. Also, a substantial pop-up in value can occur because of early retirement subsidies. Looking instead at the ultimate value

ratio, we are forced to conclude that the apparent DC advantage prior to 55 turns out to be relatively small when compared to the ultimate values at age 65. Now this point may not be pertinent for a client that needs to attract young, high tech individuals. They may stay 3 to 5 years, at the most, with an organization and are looking for capital accumulation. With respect to sensitivity to inflation, we've seen an inverse relationship. As inflation is increased, the defined benefit advantage is decreased. For similar reasons, we see the same kind of sensitivity to the spread factor.

Let me also point out that there are several variations to this study that one might wish to consider. One that I would find interesting to look at would be a non-integrated DC plan that costs 4% of pay. I think what we would find is that Young would tend to do better under the DB plan, or at least closer to the DC plan, but that Fastback might not do as well. We can examine mature industries or fix the option factor. This produces a lesser amount of sensitivity. We could consider adding a cash balance feature to the DB plan for comparison purposes.

One big question that is certainly open is what the variations of programs are in between the two traditional extremes. With that, Eric will visit with us regarding a number of hybrid plans.

MR. ERIC P. LOFGREN: I am going to be talking about the defined benefit/defined contribution dichotomy: which differences are absolutely inherent and which differences are merely traditional and not necessary. Then I'm going to try to put together a conceptual framework within which to analyze the different hybrids. This is really what we want to discuss: different hybrid approaches.

The most common approach, at least among large plans, is not the defined benefit or defined contribution; it's really one of each. The defined benefit plus a 401(k) might be typical. And this is not often a coordinated program. Frequently, it's really two programs. It's a defined benefit plan for retirement income needs and a defined contribution plan for savings plan needs. What usually happens is the contribution plan is very enthusiastically received, but the defined benefit plan is not well regarded. When the two plans are looked

at separately, there is no consideration of overall retirement benefit adequacy, and for young people who stay all the way through until retirement, the combined benefits may be very generous. It does have the advantage of being competitive, since so many companies are using the same approach. But you end up with a program with portions that are either very popular or poorly regarded. The 401(k) plan will be popular. The account balances can be significant at the young ages, and the funds are accessible for non-retirement needs. The account is visible; employees can actually watch their net worth grow. The plan is easy to understand, and it is tax effective for employee savings. It might even have an employer stock option as an investment option, which will foster good feelings towards the employer. The defined benefit plan, in contrast, isn't as favorably received. Most employees may not care about retirement, since it's so far away and since they don't necessarily intend to be working for the same company 30 years hence. If there is a Social Security offset formula, which is common, it may look like a take away. Accrued benefits are very low in the early years, and they're often not vested for 10 years. From the employer perspective, since the plan is being pre-funded, the cost can often seem quite inflated in relation to the benefits. Nevertheless, some type of plan is needed for retirement income. I've seen a lot of employers that feel they need something for defined benefit purposes, but they wanted to have some type of different packaging.

In Exhibits 1 and 2 I've tried to break down the differences that Larry discussed into necessary differences and optional differences. The necessary differences really come down to the defined benefit basics: securing specific retirement income. The defined contribution basic secures a contribution, but it cannot promise a specific retirement benefit because of unknown investment performance, inflation and the possibility of annuity purchase rates or investments being temporarily depressed at the time of retirement. The defined benefit plan does have flexible funding; defined contribution doesn't.

The defined benefit plan has a more flexible benefit design in that it can provide subsidies (early retirement subsidy), which is difficult under a defined contribution plan. On the other hand, the defined contribution plan can have investment options for employee choice; this is not so with the defined benefit. Perhaps most important, the defined contribution plan can

accommodate pre-tax employee contributions through the 401(k), which the defined benefit can't. What an employer may really need is one of each type of plan in order to get the pre-tax employee contributions from the defined contribution and to get the secure, specific retirement income from the defined benefit.

EXHIBIT 1

DEFINED BENEFIT VS. DEFINED CONTRIBUTION

NECESSARY DIFFERENCES

	Defined Benefit	*Defined Contribution*
o Investment Risk	Employer	Employee
o Salary Growth Rate Risk	Employer	Employee
o Funding Flexibility	Yes	No
o Benefit Subsidies	Yes	No
o Individual Allocation of Trust Balance	No	Yes
o Employee Investment Options	No	Yes
o Regulatory Impact PBGC Premiums Funding Standards Contingent Termination Liability	More	Less
o Pre-tax Employee Contributions	No	Yes

EXHIBIT 2

DEFINED BENEFIT VS. DEFINED CONTRIBUTION

TRADITIONAL DIFFERENCES

	Defined Benefit	*Defined Contribution*
o Buildup Pattern	Slower	Faster
o Plan Defines	Income	Lump Sum
o Employee Appeal	Older	Younger
o Vesting	Slower	Faster
o Cost for a Given Income Level	Lower	Higher
o Individual Accounts	No	Yes

Now there are other differences, shown in Exhibit 2 -- traditional differences -- which don't have to be there. The defined contribution plan is typically of appeal to young employees because it has more money available quicker and shows it as a lump sum. That's not a necessary defined contribution characteristic; it's merely traditional. Vesting is typically faster in defined contribution. It doesn't have to be. The cash balance plan has shown that you can express things as individual accounts in the defined benefit plan. What we want to explore here today is what we can do within the confines of defined benefit, defined contribution plans in terms of hybrids -- what is really possible, not simply what has usually been done.

The starting point in pension plan design (Exhibit 3) is to develop a retirement goal, as some specific income level. This would typically involve a replacement income analysis that would take pre-retirement salary, look at expense reduction in retirement, subtract Social Security benefits and income

from personal savings, and leave a net benefit needed from the plan. In conjunction, not as a second step but as a co-step, select the savings plan component. What type of savings plan level are you looking for from your plan? This is different from selecting defined benefit or defined contribution, because either one can get at an expected retirement income goal by itself. Experience might diverge, as has been explained earlier, but you can aim for an expected return and expected retirement income. As a second step, you can adapt a defined benefit or defined contribution plan to different buildup patterns of values prior to retirement. Then you decide whether to express the benefits as retirement income or a lump sum. If the benefits early are big, you can express them as a lump sum. If they are small, you are going to talk about deferred retirement income. Finally, after that, we'll come back and look at choosing a defined benefit or defined contribution plan.

EXHIBIT 3

APPROACH TO PENSION PLAN DESIGN

I. Set the retirement goal

II. Select the accrued benefit buildup pattern

III. Express as income or lump sum?

IV. Select ERISA category: DB or DC

Yearly benefit accruals can be expressed as lump sums or as present value of deferred vested retirement income. The accumulation of those accruals is what I mean by buildup pattern (Exhibit 4). The higher the buildup pattern, the higher the cost, because I am talking in the context of providing the same retirement income. If you are providing the same retirement income, as you vary your savings plan benefit upwards, naturally the cost will go upwards. It can go upwards by 50% to 100%.

EXHIBIT 4

BUILDUP PATTERNS

- The higher the buildup pattern, the higher the plan cost.
- For the same retirement income, a defined contribution plan might cost 50% more than a defined benefit plan.

In the top graph in Exhibit 5, the straight line expressed as a percentage of salary is the increasing total value of accrued benefits under a traditional defined contribution plan. The downward side is your typical accrual pattern under a defined benefit plan. This shows very clearly why the defined contribution plan is more popular. It is always higher except at the last point in time, where it's the same, if you're aiming for the same retirement income. The bottom graph in Exhibit 5 shows the year-by-year accruals. The defined benefit accruals start at approximately 2% and don't catch up to the defined contribution yearly accrual until about age 55, at which point they climb to, at 65, maybe 25% of salary. The defined contribution stays at a level 5% or so each year.

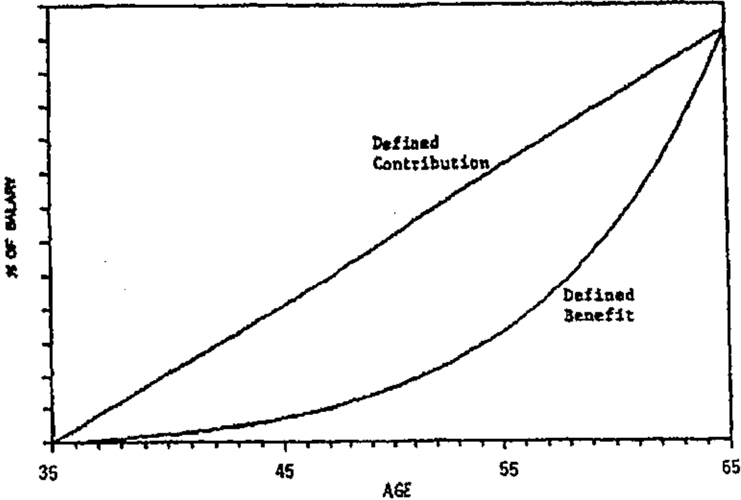
In the early years with this typical early buildup pattern of defined contribution, you can end up with an account balance that would be worth 4 or 5 times as much as the defined benefit present value of accrued benefits. This is shown in Exhibit 6. The top graph shows 85% less accrual value for defined benefit vs. defined contribution, at age 45. If you have $100 on the defined contribution, you've got $15 on the defined benefit. Naturally the traditional defined contribution is more popular. Exhibit 7 shows how the defined benefit pattern actually works in a lot of plans which have early retirement subsidies. The defined benefit plan has the lower accruals, just as we have been showing, until you get to the age where there is an early retirement subsidy. Then the value of the defined benefit shoots upwards in a straight line.

Exhibit 8 shows that the defined contribution performance is going to be tied to how your salary does relative to what interest yields are. If you are very fast track, you can outpace yourself and not get the value.

Exhibit 9, Equal Cost, illustrates what happens if you wanted the early buildup pattern, but you wanted it for the same cost. The traditional defined benefit pattern delivers 4/3 the retirement income of the early buildup pattern. Even though it has 4/3 the retirement income, it's not until about age 61 that the value of the account, the accrued benefit, is worth more. Only in the last 4 years do you get that extra 1/3. Looking at the bottom graph in Exhibit 9, the yearly accruals up until age 51 or 52 are higher on the early buildup pattern, the straight line.

EXHIBIT 5

VALUE OF ACCRUED BENEFITS



VALUE OF ANNUAL BENEFIT ACCRUAL

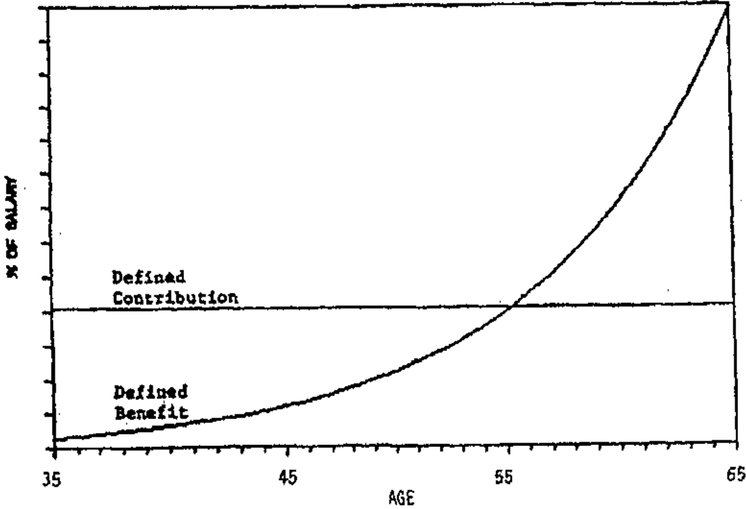
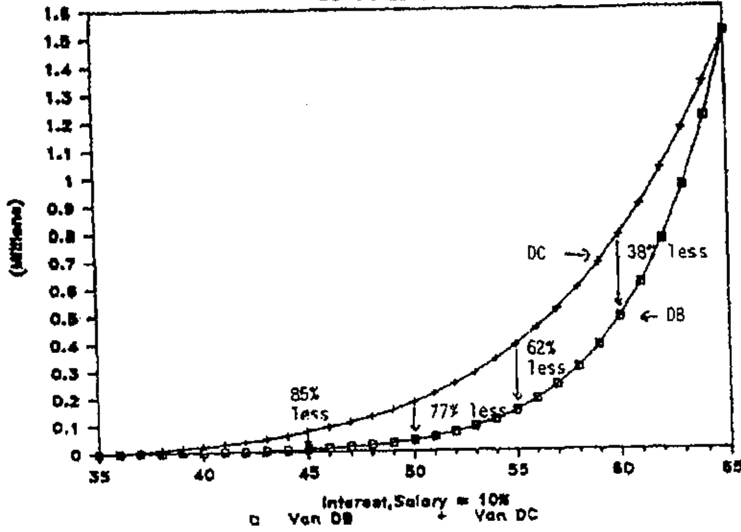


EXHIBIT 6



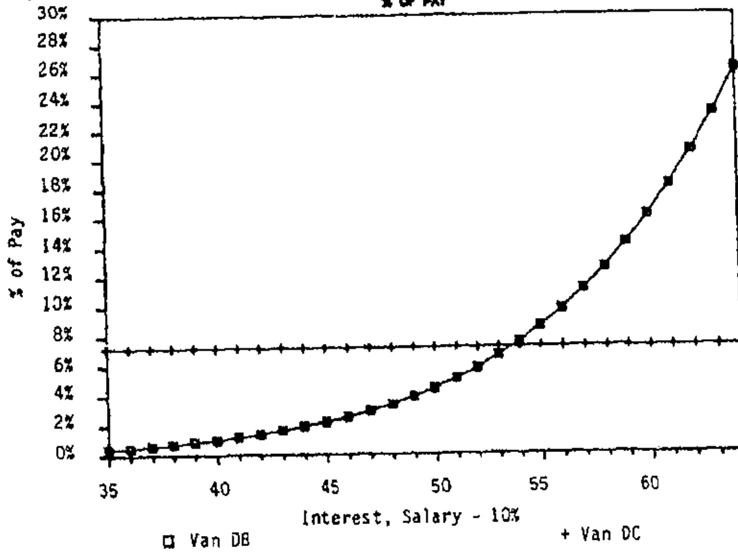


EXHIBIT 7

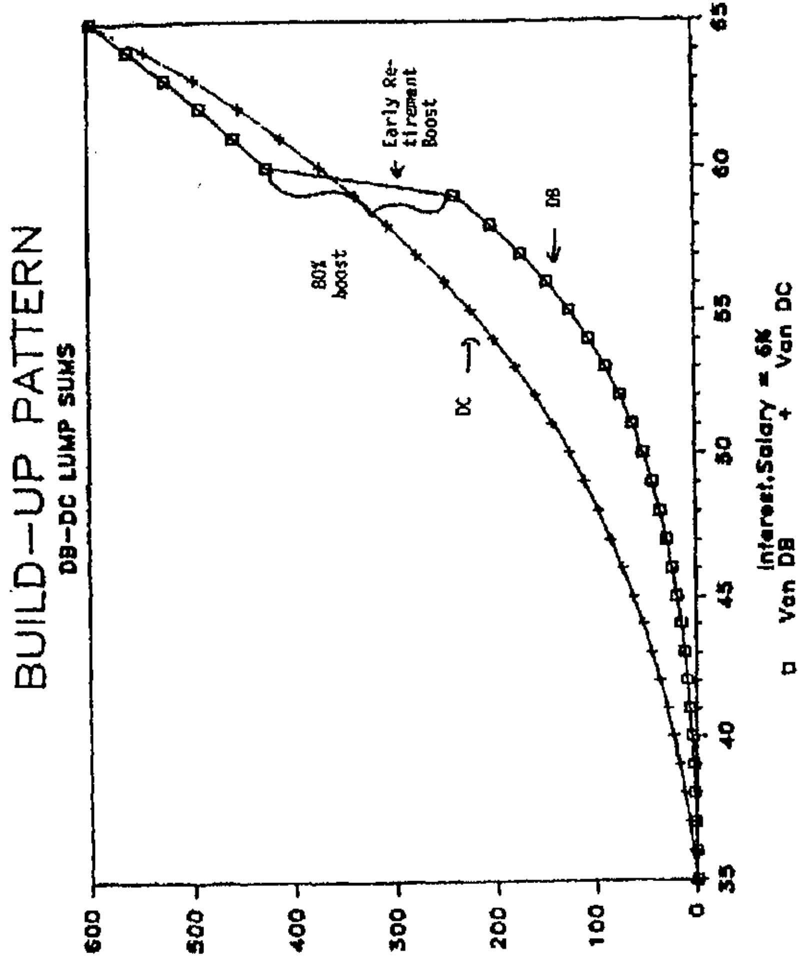


EXHIBIT 8

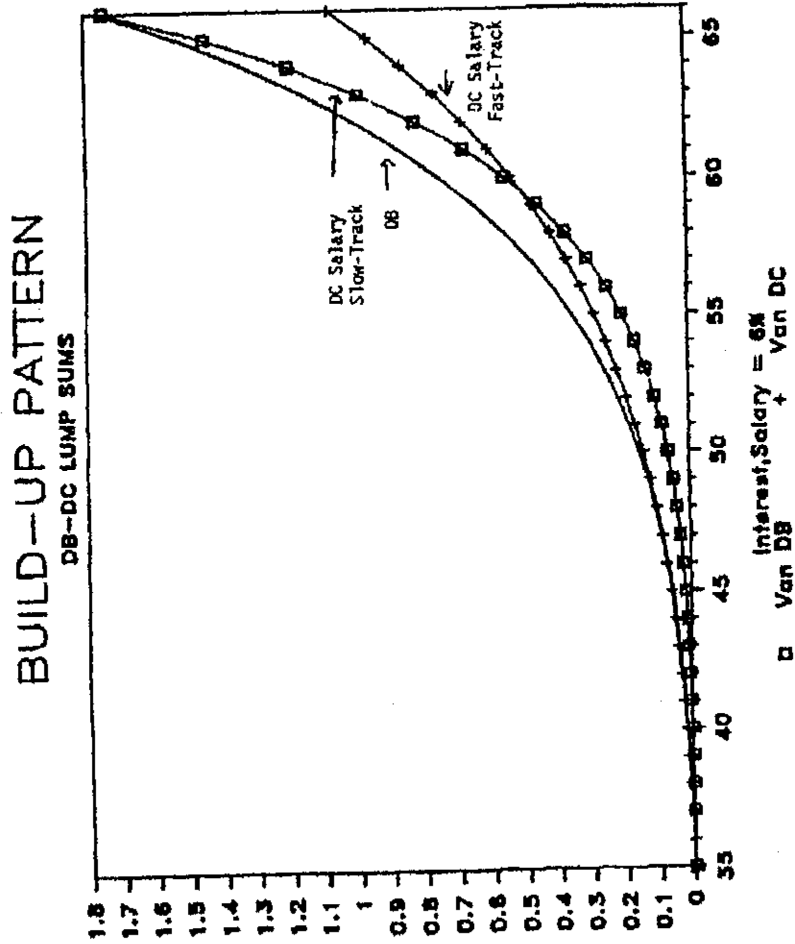
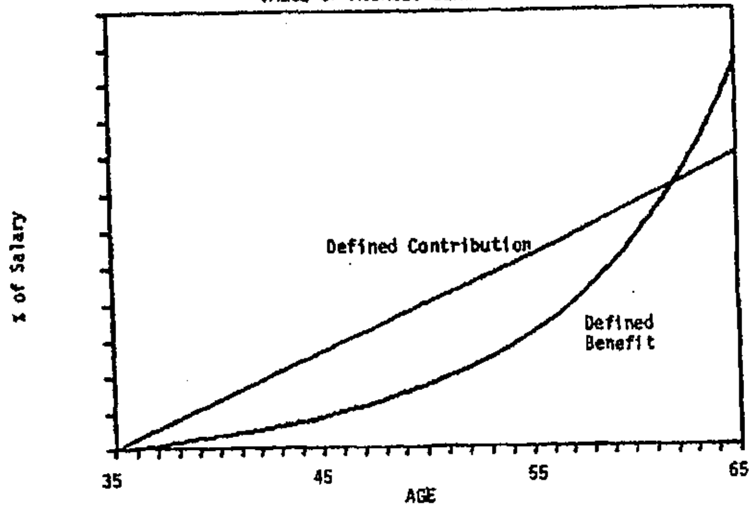
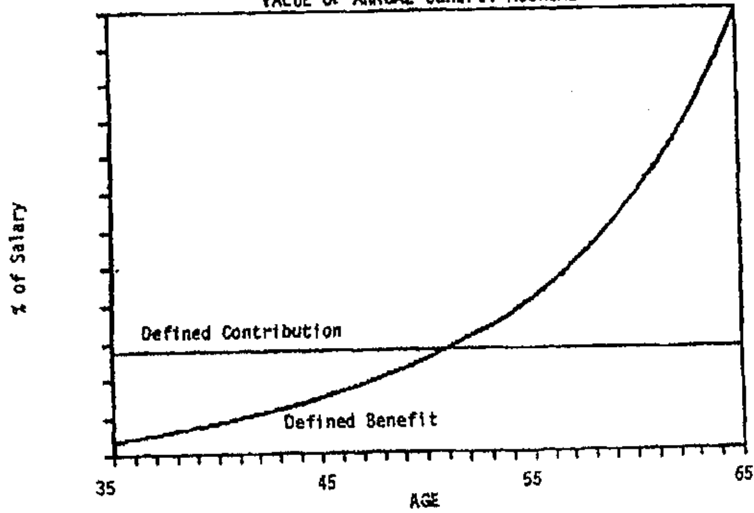


EXHIBIT 9





Thinking in terms of the buildup pattern to meet a set retirement income goal helps us analyze the hybrids (Exhibit 10). A target benefit plan is a defined contribution plan which essentially is developed to simulate a traditional defined benefit plan's accrual pattern. It is nothing more than a plan that is technically defined contribution with a late buildup pattern. A cash balance plan is also known as The Pension Equivalent Reserve Credit Plan or the Account Balance Plan. The whole point of this plan is to say, "Employee, you've got cash." The cash balance plan is the exact opposite of the target benefit plan. It is a defined benefit plan with the early buildup pattern of the traditional money purchase defined contribution. The standard approach, which is defined benefit and 401(k), ends up in between. Thus, if we go Exhibit 11, we know what the target benefit plan buildup pattern is. It's just the late buildup pattern I've been showing. We know what the cash balance buildup pattern is; it's simply the early buildup pattern I've been showing. These in between are what you really have in a typical plan. You have a pattern in between simply because you decided to have a defined benefit and a 401(k), not because you decided this was the level of benefits that you wanted. This situation offers a lot of consulting potential, because these plans are not coordinated.

EXHIBIT 10

HYBRIDS

Target Benefit Plan:	Defined contribution plan with a defined benefit buildup pattern
Cash Balance Plan:	Defined benefit plan with a defined contribution buildup pattern
Defined Benefit + 401(k):	In between buildup pattern
Floor/Offset Plans:	Start at defined contribution buildup pattern, switch to defined benefit buildup pattern, unless defined contribution pattern always higher (e.g. slow track with young entry age and solid DC investment performance).

THE BETTER ALTERNATIVE?

The bottom half of Exhibit 11 shows the floor plan. The floor plan is a combination of plans starting off with the early buildup pattern and then switching to the late buildup pattern. It's the best of both worlds. It's protecting the retirement income for when you hit 65 while providing the attractive savings plan income buildup earlier on. Actually, the cash balance plans that I've seen implemented also have this pattern, because I've not seen a real cash balance plan. I've not seen one yet where they didn't feel obliged to grandfather it or to put in the current formula as the minimum formula. If you do either of those things, you don't have the money purchase early buildup pattern. What you really have is the floor buildup pattern. The grandfathering or the alternative formula means when you're young, when we need to focus on savings, we'll do that. When you're older and we need to focus on retirement income, we'll do that. I find this a very attractive combination.

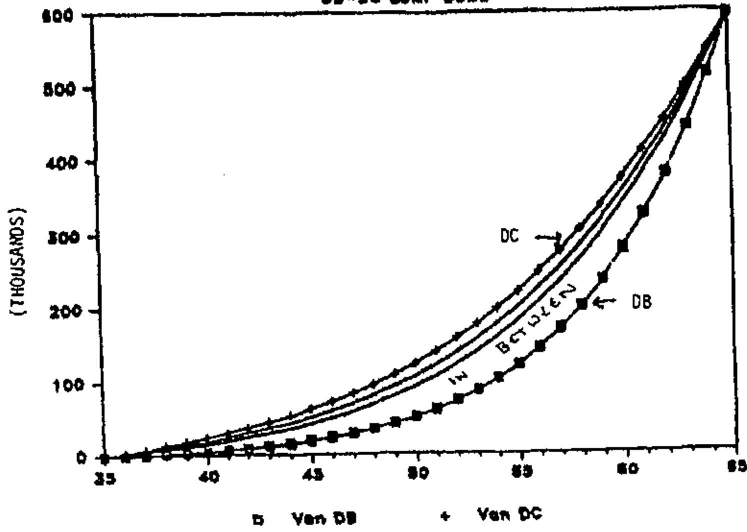
The cash balance plan is a very worthy concept. It is a defined benefit plan masquerading as a defined contribution to counterbalance the 401(k) plus defined benefit, or the floor plans which were in the middle (Exhibit 12). There's been a lot put into writing on this type of plan. I am emphasizing it only because it's been such a hot topic, and many people might be interested.

I've put together, for your amusement, two definitions of a cash balance plan. Both definitions are true, but they slant in different directions. The first definition is the upbeat definition: "Dear Employee: A cash balance plan is an exciting, modern, flexible new plan design with the advantages of both defined benefit and defined contribution. Easy to understand, each employee quickly vests in a portable lump sum account which is guaranteed to increase at the CPI for inflation protection. There are many benefit options at retirement. From the employer's side, administration is simplified, and there will be funding flexibility which will probably allow near term savings." The second definition goes like this: "Dear Employee: We've got for you a cash balance pension plan. It's our way to disguise the cutbacks in your benefits. First we're going to change it to career average. We'll express the benefits as a lump sum so we can highlight the use of the CPI, a sub-market interest rate. What money is left in the plan will be directed towards employees who leave after just a few years. Just to make sure, we'll reduce early retirement subsidies."

EXHIBIT 11

BUILD-UP PATTERN

DB-DC LUMP SUMS



ANNUAL ACCRUAL

% of Pay

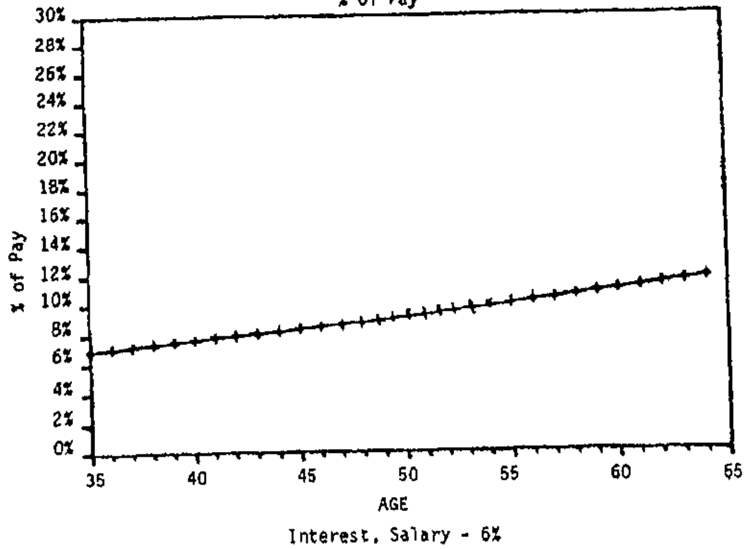
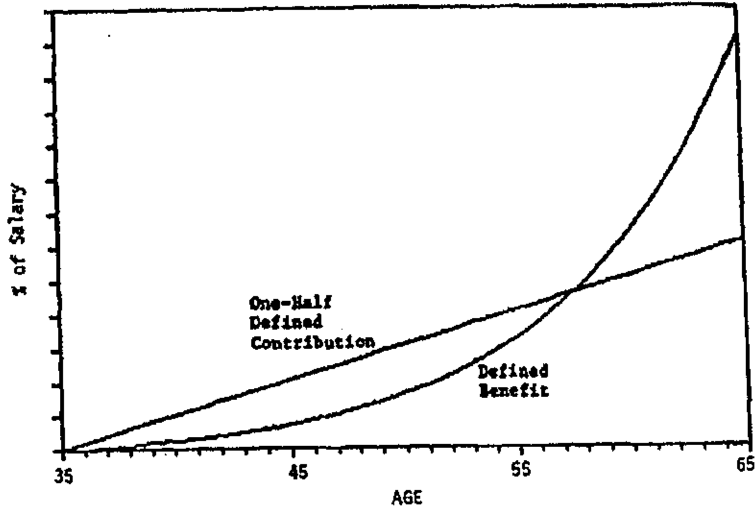


EXHIBIT 12

VALUE OF ACCRUED BENEFITS



ACCOUNT BASED PENSION PLAN

With Minimum Benefit

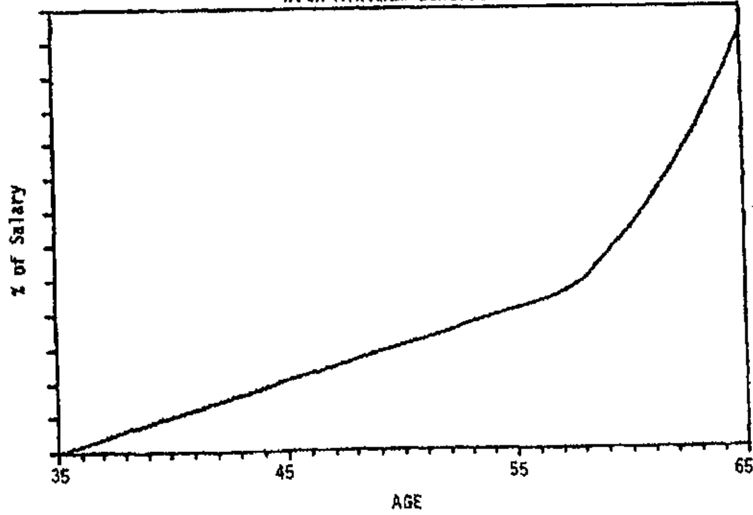


EXHIBIT 13

TARGET PLAN

Objective:

- o Reach goals for selected employees (not merely new entrants), and reflect actual salary performance in meeting goals.
  - Contains all formula features of DB plan with no unfunded liabilities.
  - But Target Plans can be difficult to explain to employees.

Operation:

- o DC plan -- individual accounts. Is actually a type of money purchase plan.
- o Contribution methodology and actuarial factors (interest and post-retirement mortality) are stated in plan.
- o Calculate a projected (i.e., target) defined benefit pension and then solve for contribution necessary to fund on attained age level method. The target benefit can reflect all the formula variations of a DB formula.
- o Self-corrects for past salary progression. Accomplishes via attained age funding of each year's benefit shortfall.
- o No mid-course corrections for investment performance. (That is, actual DC account is never considered in setting year's cost.)
- o Benefit subsidies difficult.

Uses:

- o DC plan with late buildup.
- o Gives higher contributions to older employees within DC approach. The highest age-related leverage, if in conjunction with traditional DB
- o Exact opposite of cash balance plan.

Special Constraints and Legal Requirements:

- o May be used with frozen or terminated former DB plan.
- o IRS has waived discrimination tests so long as interest rate in actuarial basis = 5% to 6% and no salary projection. This causes snowball funding which often hits 415 limits.
- o Qualifies for FASB status as DC plan.
- o Integration is 7/9 times DB limits.

THE BETTER ALTERNATIVE?

EXHIBIT 14

CASH BALANCE PLAN

Objective:

- DB funding flexibility combined with higher employee appreciation of its early buildup pattern. Often used to camouflage a benefit cutback, or remove early retirement subsidies.

Operation:

- DB plan -- no individual accounts. Plan assets need not match employee pseudo accounts.

- Plan funding is actuarial based on projected benefits. If plan has past service, it can be over or under-funded.

- Benefit formula is usually either of two approaches:

  - To make it look like a lump sum plan: express cash balance directly as in the contribution schedule for a money purchase pension plan. Specify basis in plan for granting investment credits on account (CPI, T-bill, fixed %, wage index)

  - To make it look more like an annuity promise: express cash balance as the actuarial present value of an accrued DB benefit. Generally, this would not be a very appealing lump sum amount due to late benefit buildup. So, the following steps are used to create an early benefit buildup pattern.

    1. Determine each year's accrual by the career average formula. For example:

       - Pension accrual = pension benefit of 1% of year's earnings

    2. Index benefits each year via stated index factor

EXHIBIT 14 (cont.)

CASH BALANCE PLAN

3. Convert to lump sum amount at factors stated in plan. The effect of the indexing in (2) is comparable to using minimal or no pre-retirement interest discount to determine lump sums.

- Index chosen can simulate career average, final average, or money purchase.
- Variations:
  1. Can use as alternate minimum formula in a DB plan.
  2. Can provide early retirement features and subsidies via temporary supplements.
  3. Grandfathering common at conversion.

Uses:

- DB plan with early buildup for mobile workforce.
- Often a disguise for a cutback on benefit subsidies (i.e., early retirement subsidies).
- Generally, the indexation is less than anticipated fund earnings, permitting much slower funding and contribution holidays if surplus exists.
- Continues DB funding latitude for a DC presentation.
- Employer still gets excess investment returns.

Special Constraints and Legal Requirements:

- Recent hype (1985), although ancient versions do exist.
- Full range of IRS Issues not fully explored, but careful design needed to comply with 415 limits and integration.
- Can't be 401(k).

EXHIBIT 15

FLOOR PLAN

Objective:

- o Provide DB goal as minimum, while giving employees the upside performance on amounts being accumulated in DC plan.

Operation:

- o Two plans (two funds, two documents, two everything)
  - Offset = self standing DC plan (any type)
  - Floor = DB plan acting as a 2nd plan, providing an umbrella benefit.
- o Floor plan calculates a DB, then compares and offsets for "pension equivalent" of DC account.
- o Floor plan pays a benefit only if there is a shortfall. Can correct for conditions causing inadequate DC accounts:
  1. Low profits
  2. Poor investment returns
  3. Early retirement shortage
- o Pension equivalent of DC account can be via annuity rates, actuarial equivalent basis, actual insurance costs. Method must be stated in plan.

EXHIBIT 15 (cont.)

FLOOR PLAN

- Amount of DC account considered must reflect investment choices, withdrawals, employee voluntary contributions. Employer may limit investment choices. Almost always necessary to create an imputed account for DB actuarial valuation purposes.
- Benefit subsidies easy and automatic.
- Employee gets windfalls.
- Difficult to communicate properly.

Uses:

- To provide minimum benefits in spite of poor DC experience.
- To permit benefit subsidies at early retirement.
- As wraparound plan with DC plan after termination.
- Add floor later, if needed.
- Combine with 401(k).

Special Constraints and Legal Requirements:

- Floor plan funding is ERISA, as with any DB plan. Anticipated benefit is funded under any of five methods and regular actuarial assumptions. Special assumptions needed to project future contributions and growth in DC (offset) plan.

THE BETTER ALTERNATIVE?

EXHIBIT 16

DEFINED BENEFIT PLUS 401(k)

Objective:

- Frequently there is none. The two plans are regarded separately as pension plus savings.

Operation:

- Two plans (two funds, two documents, two everything):
    - Self standing DC plan
    - Self standing DB plan
- Typically DC plan enthusiastically received, and DB plan not well regarded.
- Design often not done with retirement benefit adequacy in mind. Combined benefits often generous.
- Has all the characteristics of DB and DC
- Probably the most common approach.

Uses:

- Competitive.
- DB addresses income needs. DC addresses buildup needs.

Some of the plans described in the press, with the language of the first paragraph, actually had the characteristics described in the second paragraph. That doesn't mean this is bad plan design. I happen to think, especially with the minimums, that it's a good one. It's got its place, as do all the hybrids -- even the target plan. I actually know of three target plans, which probably puts me two or three above most people in this room. The clients had particular reasons why target plans were appropriate and were used. I'll give you a good example of a situation where a target plan might be appropriate: the Hotel del Coronado. In a hotel, your upper management tends to leave and turn over just as quickly as your lower level employees. You want something that gives them a benefit quickly. You want a traditional defined contribution approach. However, you've got all kinds of young employees who are in and out. You don't necessarily want high benefits for the younger level. A target benefit plan might be a good idea for a hotel.

Exhibits 13 through 16 are descriptions of all the different plans, their usage, their objectives, and special constraints.

I'd like to add two cautions (Exhibit 17). When looking at plans, don't simply consider what is good today. Consider how the plan you are designing will fit in with the future. The law may well be changed to restrict pre-retirement withdrawals. If that happens, defined contribution plans might be regarded as super IRAs or retirement income plans instead of savings plans. It could happen. The second caution is that demographics are going to change. For a while the population was under zero population growth.

EXHIBIT 17

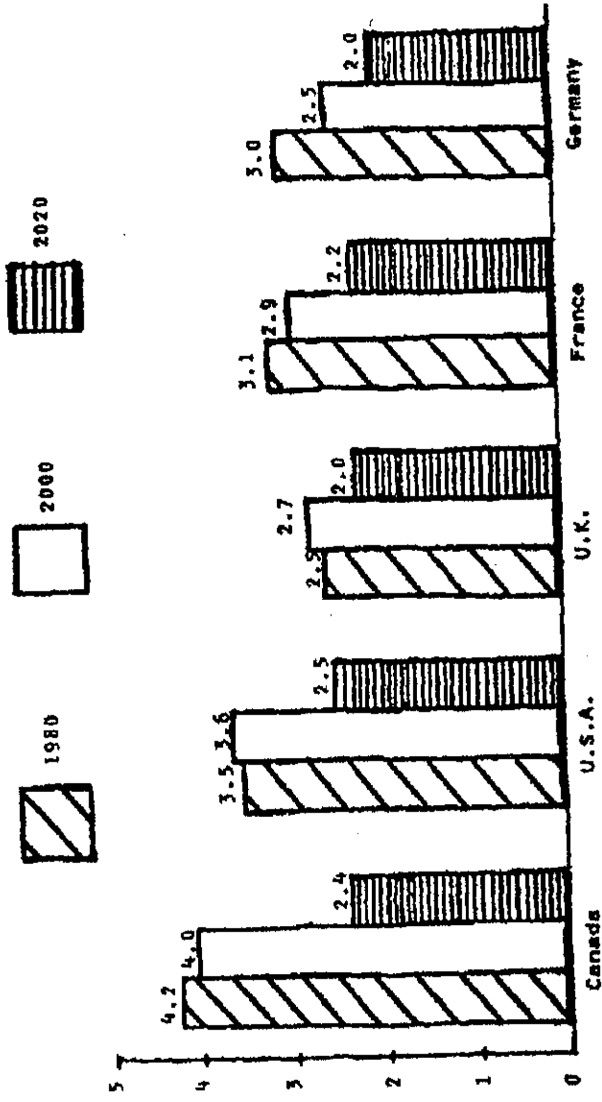
FUTURE CONSIDERATIONS

- Law may well be changed to restrict pre-retirement withdrawals. Defined contribution plans would be regarded as super-IRAs.
- Demographics are about to change significantly. Higher average age workforce. Lower worker to retiree ratio.

THE BETTER ALTERNATIVE?

When people my age are ready to retire, there are not going to be people to replace them (Exhibit 18). Possibly there will be no money for Social Security. There will be pressure for people to continue working. You may not want to encourage mobility. Young workers may be hard to find. Older workers may be precious to keep. It may be a whole new ballgame. So when addressing today's needs, I would caution you to not lock yourself into where you can't address tomorrow's needs.

EXHIBIT 18



FAX

1999 ENROLLED ACTUARIES MEETING

Marriott Wardman Park Hotel
Washington, DC
MARCH 14-17, 1999

605: CASH BALANCE PLANS – CURRENT ISSUES

PANEL

Richard C. Shea
Lawrence J. Sher

605: CASH BALANCE PLANS -- CURRENT ISSUES

MR. LAWRENCE J. SHER: This is the third in a series of sessions. How many of you ended up being at all three? What would you say, Mr. Shea? About half?

MR. RICHARD C. SHEA: Yes.

MR. SHER: That's good. My name is Larry Sher for those few of you who were not at either of the previous sessions. I'm a principal with PricewaterhouseCoopers in New Jersey. I'm very happy to have with me today Richard Shea, who is a partner with the prestigious Washington law firm of Covington & Burling. I don't know if we should mention, Mr. Shea, that you were previously with the Treasury. You don't mind us saying that?

MR. SHEA: No.

MR. SHER: I guess back in the late 1980s into the early 1990s Mr. Shea was in the Benefits Tax Counsel Office at the Treasury Department. I remember back in those days visiting him and others, going way back, talking about cash balance plans and how they fit all the various qualification rules. This session, unlike the previous two, is going to focus solely on cash balance plans and current issues surrounding them.

We should remind you that the opinions that you are going to hear today, of course totally unbiased opinions, are those of Mr. Shea and myself. They do not necessarily represent the opinion of anyone else, especially the government, plaintiffs' attorneys, especially *The Wall Street Journal*, but they represent...and not the sponsoring organizations either...I want to get that in...so they are really Mr. Shea's and my opinions.

Interestingly, if six months ago when I agreed to do this session you had asked me, "Well, what do you think you're going to talk about today?" I think it would have been quite a bit different from what our agenda has in store for you. One of the major things that have occurred, for those of you paying attention to the press, particularly *The Wall Street Journal*, is that a new group of skeptics has arisen. I remember being involved in the very early cash balance plans, the first one, as a matter of fact, following the adoption back in the mid-1980s of that plan. Mostly it was benefits consultants who were writing articles and sort of panning cash balance plans, that they are a flash in the pan, that they are a gimmick, that they can't satisfy any of the rules and we're not going to see very many of these if any. Gradually over the course of time you saw that attitude eroding. I think business conditions were such that it made sense for others to get involved in them and understand them. More and more companies became interested in them. Now we seem to have the press catching up, and they do have some catching up to do. It is a process, just as it took many of us a while to figure out how flexible these plans are and what they are really accomplishing. It is taking the press and others, some others in government, are struggling with trying to understand what is really behind these plans, what are the motives of the employers that are adopting them and how well do employees do under them. We are going to try to get into a lot of that today and try to clear things up a little bit.