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THE CASH BALANCE PENSION PLAN

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THE CASH BALANCE PENSION PLAN CONCEPT

1. Origins

One of the more recent evolutionary innovations in the employee benefits field is known as the cash balance pension plan. This relatively new type of plan combines aspects of both traditional defined-benefit pension plans and defined-contribution plans within a single vehicle. The cash balance concept originated in the mid-1980s, in response to a growing realization that more traditional retirement vehicles were no longer keeping pace with the changing needs of employers and the work force.

(a) *Inadequacy of Traditional Defined-benefit Plans.* A generation ago, when most defined-benefit plans were established, it made sense to skew retirement benefits heavily toward long service employees, since workers commonly spend their entire careers at one company. But times have changed, and in today's era of employer downsizing, worker mobility, and involuntary layoffs, one-company employees are the exception rather than the rule. Fewer than one in five employees remain with one employer throughout his or her career.

Under traditional final-average-pay defined-benefit plans, benefits accrue on an age-related basis. In other words, even though employees of different ages with equal pay accrue the same amount of normal retirement pension benefit for each year of service, far less money is needed to be set aside on behalf of a younger employee than his older counterpart. This is because, until the pensions become payable at normal retirement date, the money set aside on the younger employee's behalf has more time to earn interest than does the money set aside for the older worker. As a result, the pension values of younger workers under final-average-pay plans accrue at a much slower pace than do their older colleagues. So, when a 35-year-old participant with 10 years of service in a final-average-pay plan leaves his employer, he is likely to be shocked at how little his accrued pension benefit is worth in terms of current dollar value.

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Compounding this problem for the short-service employee is the fact that most final-average-pay plans freeze the benefit to which terminating employees are entitled at benefit levels that are tied to their compensation at the time they left. Accordingly, the amount of benefits to which these individuals will be entitled at retirement may be even further eroded, since the benefit is based on outdated pay, which does not keep pace with inflation.

It is no wonder that a substantial segment of today's work force, other than those at the tail end of their careers, appear to place little value on their traditional pension plan.

(b) Strengths of Defined-contribution Plans. In contrast with the declining appeal of traditional defined-benefit plans over the years, defined-contribution plans have enjoyed ever-increasing levels of appreciation with employees at all stages of their careers. This has been the case despite the fact that defined-contribution plans typically cost a fraction of their defined-benefit cousins' and thus provide less benefit security.

There are several reasons for the appeal of the defined-contribution plan format, and they all reflect the individual account orientation of these plans. First, plan benefit values accumulate on a level basis, and thus grow far more rapidly in the earlier stages of an employee's career as compared to traditional defined-benefit plans. This is because the contributions to such plans are typically age neutral—the amount of company contribution made on a participant's behalf each year is unrelated to the employee's age. Instead, defined-contribution plans generally provide benefits in line with the modern corporate objective of providing comparable pay for comparable work without regard to age. Such an accrual pattern is far more beneficial to younger employees, since plan benefit values (i.e., the individual participant accounts) accrue more rapidly at early states of an employee's career than under the "backloaded" accrual pattern of a traditional defined-benefit plan.

Also, under a traditional defined-benefit plan, benefits are typically expressed in terms of a complex pension formula, which is neither easily communicated nor readily understood by the average plan participant. More often than not, the benefit—which is usually framed in terms of a single life annuity beginning at "normal retirement age"—is viewed by younger employees as nothing more than a distant promise of a remote benefit commencing some time next century, and its dollar value is particularly elusive for most employees. In contrast, a defined-contribution formula is usually straightforward and easy to comprehend, and the value of the benefit that is earned for each year of service (i.e., the employer's contribution and the interest credited on the account) can be understood and appreciated by even the most unsophisticated plan participant.

Furthermore, employee appreciation of a defined-contribution plan is typically reinforced at regular intervals through periodic statements (usually quarterly) reflecting contributions and earnings credited to the employee's account since the last valuation date, and the resulting new balance at the end of the current valuation

period. Note that such periodic statements can render even a complicated contribution formula quite understandable, inasmuch as statements keep employees up-to-date on their primary concern, which is knowing the current value of their account.

Finally, defined-contribution plans invariably provide participants with the right to receive their distribution in the form of a lump-sum cash distribution on termination of employment—a feature less frequently seen in traditional defined-benefit plans, but one that has great appeal to employees.

(c) *Why Employers Continue to Maintain Defined-Benefit Plans.* To the typical plan sponsor, the less popular pension plan usually costs more and the more popular defined-contribution plan usually costs less. So why do employers maintain traditional pension plans under these circumstances? Why not look solely to a defined-contribution plan for company-sponsored retirement benefits? While a few employers have done just that, most have not for a number of reasons:

- Because of their inherent market volatility, defined-contribution plans cannot be relied on to provide safe and secure retirement income, and benefit adequacy can be a special problem for early retirees and employees hired late in their careers. Nor do these plans have an effective mechanism to either provide past-service benefits or update accrued benefits. If the plan is a company-match savings plan, as is usually the case, a certain portion of the work force will decline to participate or will participate only marginally. If contributions are determined by profits, benefit adequacy will be at the mercy of the employer's year-to-year profitability. Additionally, in either case, in-service withdrawals can seriously erode benefit adequacy.
- A defined-contribution plan transfers the investment risk to the employee, and as a consequence, problems might ensue if the employee retires or terminates in a down market, or if the fund's managers achieve unsatisfactory results. The employee, who has a shorter time horizon than the employer, is not as well equipped as the employer to ride out the inevitable down-market cycles.
- Employers are concerned that employees may misuse a defined-contribution plan in any of several ways, including: withdrawing funds intended for retirement during working years, electing not to participate in a plan requiring employee contributions to the extent that the employer envisioned, or choosing the wrong investment options. In this regard, note that where employees have choice over their investments (as would generally be the case in the defined-contribution context), they tend to be conservative, typically allocating as much as 80% of their account balances on average toward fixed-income investments. Because the employer's longer time horizon enables it to ride out down-market cycles, a defined-benefit plan can expect to achieve better investment results over the long haul through diversification, thereby potentially generating additional funds that presumably can be shared with employees or with shareholders via a reduced pension expense.

- Defined-contribution plans lack funding flexibility. In contrast, the funding for a defined-benefits plan can anticipate turnover, amortize gains and losses, provide a range of company contribution levels, and in general help the employer manage the incidence of costs to meet the company's objectives, all within various professional and legal parameters.
- As a general rule, under the Internal Revenue Code (the Code) Section 415 limits on contributions and benefits, the amount of qualified plan benefits that can be delivered to higher paid employees can be maximized only if benefits are provided through a combination of defined-benefit and defined-contribution plans.
- A defined-benefit plan, unlike its defined-contribution counterpart, can be used as a vehicle to provide enhanced benefits to employees as an inducement to encourage them to retire under a voluntary early-retirement "window" program. This factor is attracting increasing attention in the current era of corporate downsizing.
- In a defined-benefits plan, the gain from forfeitures can be factored into the employer's cost from the plan's inception. In a defined-contribution plan, on the other hand, the employer cannot take credit for forfeitures until they actually occur, and even then only if the plan provides that the forfeiture is to be applied to reduce employer contributions. For an employer with high turnover and a tight budget, this factor can weigh in favor of the defined-benefit plan, particularly in the early years of a plan's existence.

These were among the considerations that prompted Bankamerica—the first employer to adopt a cash balance plan—to reconsider in 1985 the format of its traditional defined-benefit pension plan (final average pay with a social security offset). After an exhaustive study, the bank concluded that the ideal pension vehicle to address its needs would be neither a traditional defined-benefit plan nor a traditional defined-contribution plan, but instead a new vehicle that combined the best features of both—and thus the cash balance pension plan was born. Most employers that have adopted the cash balance concept have retained their defined-contribution savings plan (in many cases improving the latter in the process), since the combination can be tailored to provide an ideal retirement program mix. Both utilize individual employee accounts, with the cash balance plan providing the retirement security that only a defined-benefit plan could offer and the savings plan permitting employees to "play the market" to the extent they desire.

DESCRIPTION OF THE PLAN

What is a cash balance plan? How does it blend seemingly inconsistent characteristics of both defined-benefit and defined-contribution plans within a single vehicle?

(a) *Defined-Contribution Plan Attributes.* The cash balance pension plan is a defined-benefit plan that is designed to look like—and be perceived by employees

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as—a “riskless” defined-contribution plan. As such, a typical cash balance plan embodies the following appealing attributes normally found only in defined-contribution plans:

- Individual accounts, under which the current value of benefits is expressed understandably and visibly via periodic statements as a lump-sum cash amount
- Payouts that are available in the form of lump-sum cash distributions
- Predictable costs that tend to vary with payroll
- Benefit accruals that are “age neutral.”

(b) *Defined-Benefit Plan Attributes.* However, since a cash balance plan is, in actuality, a defined-benefit rather than a defined-contribution plan, it also incorporates the following features generally associated with defined-benefit plans:

- Dependable and secure income (accounts can never go down—they always increase at a specified rate)
- The ability to provide past service benefits and benefit updates, if necessary or desirable
- Funding flexibility—a cash balance plan is funded on an actuarial basis, so that the employer can contribute any amount within the usual Internal Revenue Service (IRS) minimum and maximum deductible contribution limits
- Benefits that are guaranteed (implicitly by the minimum funding requirements of the Employee Retirement Income Security Act of 1974 (ERISA) and explicitly by the Pension Guaranty Corporation)
- Attractive annuity options, so that an employee who wants a life annuity does not need to take his or her account outside the plan where it would cost more to purchase the same annuity benefits
- The ability of the employer to formulate a risk/reward investment policy for plan assets that is consistent with its own objectives.

Both management and employees at Bankamerica initially gave the cash balance plan a warm welcome, and their enthusiasm has grown over time. To date, hundreds of plan sponsors have followed suit, many of which are in the Fortune 500 club, and well over one million employees already participate in such plans.

OPERATION OF THE PLAN

Like all defined-benefit plans, cash balance plans embody a specific promise to pay a formula-determined benefit at retirement. However, instead of expressing that promise as a benefit based on final average pay, the benefit is framed in terms of an individual account balance that steadily grows over time in line with salary increases and a guaranteed interest credit. At any point in time, in effect, the account represents the present value of the underlying accrued pension benefit. Since the benefit is structured to resemble the benefit of a defined-contribution plan, the focus is on the amount of the lump-sum value of the accrued benefit (i.e., the account), rather than on the underlying pension benefit itself.

(a) Key Components. The two key components of the cash balance benefit structure consists of “pay-related credits” and “interest-related credits” to a plan participant’s cash balance “account.” The aggregate combination of these two credits is intended to replicate the corresponding account value under a defined-contribution plan in which the employer had contributed at a rate of compensation equal to the pay-related credits and the fund had earned a rate of return equal to the interest-related credits.

(b) Common Features

Establishment of Account. A cash balance account is established for each employee who becomes a plan participant. These accounts are merely a bookkeeping device to keep track of the current lump-sum value of each participant’s accrued pension benefit, and are not directly related to plan assets. If the plan replaces an existing pension plan, employees’ initial accounts would consist of an opening balance, typically equal to the actuarial present value of their accrued prior pension plan benefits. (Of course, the employer has other options as to the prior plan’s accrued pension benefits, such as leaving them in place or purchasing an annuity, but usually the establishment of an opening balance is far more attractive and consistent with the way future benefits will be earned.)

Pay-Related Credits. Each month thereafter, the employee’s account receives additional pay-related credits. These are likely to be computed as a flat percentage of the employee’s compensation. A common practice is 4% or 5%, although applicable rules do not limit the choice. In addition, social security integration can be achieved by crediting a higher contribution rate on a portion of the employee’s annual pay above a specified level.

Interest-Related Credits. Employees’ accounts are also credited with interest-related credits at a rate specified in the plan. However, this rate is not tied to the actual investment performance of the plan’s assets. The rate credited may vary from year to year and if so, it is set and communicated to employees before the start of the year. Typically, the rate of interest credited is related to some outside, objective index, such as the consumer price index (CPI) or the yield on one-year Treasury bills.

Prohibited Distributions During Employment. Since a cash balance plan is officially a pension plan, withdrawals are not permitted during employment. Cash balance accounts can, however, serve as collateral for the plan loans, but very few, if any, plans utilize this feature (largely because of potential administrative problems related to the requirement that such loans be “adequately secured”). Note, too, that unlike their defined-contribution predecessors, most cash balance plans do not permit or require employee contributions. This is because (1) in the United States most pension plans are now noncontributory, and (2) pension plans by law are not permitted to accept employee contributions on a 401(k) pretax basis.

Vesting. Typically, the vesting schedule will tend to be in line with what is found in most capital accumulation plans. Thus it will be at least as rapid as in traditional pension plans (100% after five years), and perhaps even more rapid. Vested employees who terminate usually are entitled to their accounts in an immediate lump sum, perhaps to be rolled over into an IRA. Alternatively, the participant may choose to have his balance remain in the plan, accruing interest credits until retirement age.

Disability and Death. Benefits for employees who become disabled or die usually vest in full.

- Disability benefits can be paid out to coordinate with the company’s long-term disability (LTD) plan. Part or all of the employee’s balance might remain in the plan earning interest credits, or even further benefit credits, until age 65 when LTD benefits usually cease.
- Being defined-benefit plans, cash balance plans need only to provide at death the surviving spouse benefits mandated by the Retirement Equity Act of 1984. However, in practice most plans provide more substantial death benefits equal to the full account balance payable in a lump sum or convertible into an annuity, and in this case, there would usually be no difference in the value of benefits between single and married employees, or male and female employees.

Distribution Options. At retirement, the cash balance account may be available as a lump sum or may be convertible into any of a number of optional forms of annuity that the plan makes available, based on annuity conversion tables set forth in the plan. Of course, the normal form of benefit for a married employee must be a qualified joint-and-survivor annuity unless spousal consent is obtained.

AN EXAMPLE OF THE PLAN

Table 1 exemplifies a typical pattern for a new employee earning \$30,000, where the plan provides 5% pay-based credits and 7% interest-related credits. Note the rapid account buildup (representing nearly 30% of pay after five years), as well as the increasing importance of the interest credit element.

TABLE 1
Cash Balance Plan Growth

Year	Account Value (Beginning of Year)	Pay-Based Credit	Interest Credit*	Account Value (End of Year)
1	\$ 0.00	\$1,500.00	\$ 52.50	\$1,552.50
2	1,552.50	1,500.00	161.17	3,213.67
3	3,213.67	1,500.00	277.46	4,991.13
4	4,991.13	1,500.00	401.87	6,893.00
5	6,893.00	1,500.00	535.01	8,928.01

* Assuming credit based on mid-year value of account.

INCIDENCE OF ACCRUAL AND COST

Under a typical defined-benefit plan, the rate at which the value of an employee's pension benefit accrues is geared to his or her age—an older employee's rate of value growth is disproportionately higher than a younger employee's. For example, in a typical final-average-pay plan, the value of the incremental pension benefit earned for an employee at age 60 could be expected to be more than 10 times greater than for an employee at age 35. Thus, older employees receive relatively more retirement income per dollar of company cost than do employees who leave earlier in their careers.

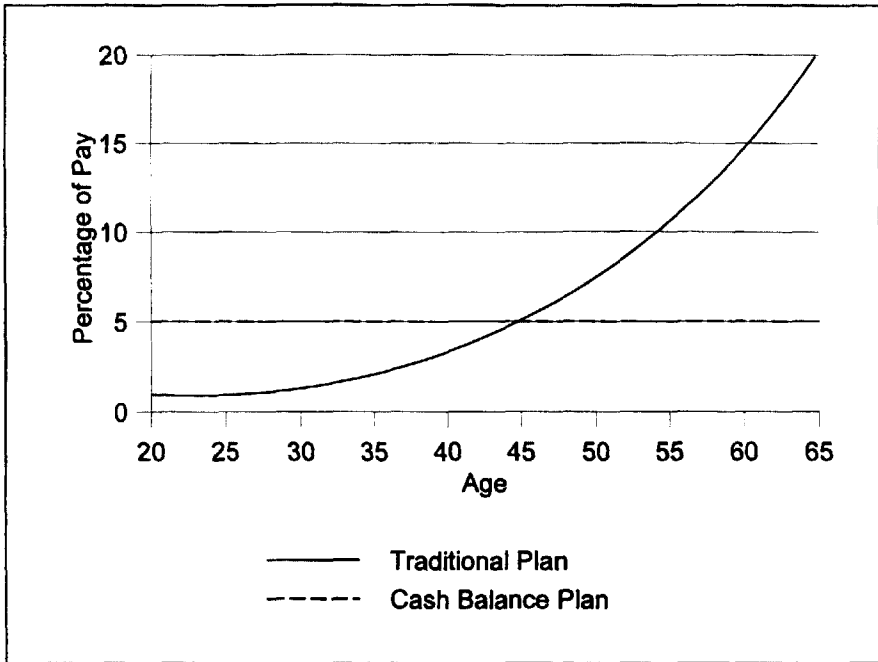
In contrast, a cash balance accrual pattern is typically characterized by annual credits to an employee's account that are stated in terms of a fixed percentage of compensation—so the present value of the benefit accrues at a rate that is a level percentage of compensation, regardless of the participant's age. Thus, the cash balance approach is relatively more generous to younger employees and employees who terminate before retirement than the more traditional approach is, and consequently the incidence of cost under a cash balance plan also differs from its more traditional counterpart. Figure 1 compares the annual cost at various ages, as a percentage of current pay, of providing an equivalent benefit commencing at age 65 under a typical cash balance plan and a typical final-average-pay plan.

As Figure 1 graphically demonstrates, employees who terminate employment early in their careers under the cash balance approach will be entitled to larger benefits, and incur greater employer cost, than under the traditional approach. For a plan sponsor that can afford to commit only a fixed percentage of payroll to providing retirement benefits, a plan that provides relatively larger benefits to its younger, short-service employees will inevitably have less money available to provide benefits to its long-service employees. Thus, the cash balance approach involves a trade-off; it is not a panacea. An indication of the extent to which the cash balance accrual pattern makes sense for a given employer can be gleaned from the employer's response to the following two questions:

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1. Should the amount of benefits to short-service employees be minimized in order to provide maximum benefits to long-service employees at the lowest possible cost? Or alternatively,
2. Should the amount of benefits to employees, as a percentage of current pay, be independent of employees' relative age?

FIGURE 1
Accrual and Cost for a Typical Cash Balance Plan
(Annual Cost of Benefit Earned as a Percentage of Current Pay)



Obviously, there is no right or wrong answer to these questions. Those answering the first question affirmatively would probably lean toward a final-average-pay format as the primary retirement vehicle, whereas those affirmatively answering the second question would be likely to view the cash balance approach more favorably. The essential issue here is "what is fairest to employees?" and those employers adopting the cash balance approach have concluded that younger employees should not be penalized because of their age, particularly in view of the increasing importance of portable retirement benefits.

Clearly, the crucial distinction between the cash balance approach and more traditional approaches insofar as the accrual pattern is concerned centers on this extra money expended on those who leave early. A company must feel comfortable with this factor and must be convinced that the advantages of cash balance are worth the investment. It should be noted that this circumstance is not the objective of cash balance design, but results merely from the levelized accruals that these plans provide—and it only becomes a perceived “problem” when contrasted with the minimalist benefits provided by traditional plans. Moreover, since cash balance accruals typically parallel the allocation patterns commonly found in many defined-contribution plans, a company comfortable with the incidence of cost in that context presumably should be comfortable with the cash balance context. Note, however, in the discussion under “Plan Design Considerations” and “Transitional Considerations” that there are ways to structure the accrual pattern of a cash balance plan to more closely resemble that of a traditional plan, although some of the basic simplicity of the cash balance approach may suffer as a consequence.

DESIGN CONSIDERATIONS

A cash balance plan can be configured in a number of ways, depending on the employer’s goals and those of its work force. Accordingly, a decision to adopt a cash balance plan is only the first step in a process in which a number of issues—each entailing an array of choices—must be addressed. These issues are discussed in the following paragraphs.

1. Pay-Related Credits

Several options are available for pay-related credits. Under the simplest approach, the credits are determined by using a straightforward formula, often a flat percentage of pay. In addition, the credits can be integrated with social security (for example, 3% of the first \$10,000 of pay, plus 6% of pay in excess of \$10,000). Or the amount of credits can vary to a certain extent with increasing age or service (for example, 4% credits during the first 10 years of employment and 5% thereafter). Employers with heavier-than-normal turnover may find that such service-weighted benefit formulas help offset the extra costs associated with early leavers. In any event, the decision as to the amount of credit will be a function of many factors, such as:

- The employer’s retirement income goals and objectives
- The benefit levels of the plan being replaced
- Benefits available from an accompanying savings plan
- The cost of any benefit minimums or grandfather provisions
- The employer’s financial condition, and its related need or desire to reduce costs or eliminate redundant benefits
- Competitive pressures.

Before establishing the amount of the pay-related credits, it is generally advisable to run a series of detailed retirement-income projections for a broad cross section of employees under alternative economic scenarios. Such projections can help to ensure that the plan’s accrual pattern is consistent with management’s retirement-

income objectives. To avoid the potential for benefit redundancy, such projections should take into account social security as well as savings plan balances. Differences in company subsidies for active and retiree medical costs may also be significant.

2. Interest-Related Credits

The plan must specify the basis for interest credits. The higher the interest credit, the higher the level of benefits and attendant plan costs. Typically the interest credit is pegged to a readily available, externally determined rate, such as a one-year Treasury bill rate or a rate related to the CPI. Alternatively, some employers choose a rate that is acceptably competitive with short-term rates available to employees elsewhere. In any case, there may be an alternative minimum or maximum basis for unusual circumstances. Note that since the combination of the pay-based credits and the interest-related credits determines the actual benefit payable, employers have a great deal of flexibility in selecting these two elements.

3. Grandfathering and Minimum Benefits

As we have seen, traditional pension plans concentrate more of their financial firepower on older employees than do cash balance plans. Therefore, without special treatment, conversion of a traditional plan to a cash balance plan may result in lower benefit accruals in the future for older participants. Grandfathering of prior plan benefits for those who would be adversely affected by the change can alleviate this problem. One common approach along these lines is to incorporate as an integral part of the plan a transitional provision ensuring that older employees, such as those over age 50 on the date of the conversion, will retain at least the benefit they would have received under the formula of the plan being replaced.

Similarly, without any special treatment, cash balance plans may not satisfy the benefit expectations of early retirees and late entrants. Minimum pensions can alleviate these problems. They are especially appropriate if a prior plan subsidized these groups and the employer wants to continue that practice. Where minimum pensions are desired, they too can be made an integral part of the plan.

4. Opening Balances

If the cash balance plan is replacing a preexisting plan, the determination of the amount of the opening balance is critical. To assure that the new plan is well received, a generous approach is often advisable. While there is a range of alternatives, the most straightforward approach is to compute the present value of each employee's accrued pension benefit, using current interest and mortality rate assumptions such as those already being used in the plan to pay lump sums. Other things being equal, since the process involves the determination of the present value of the accrued pension benefit, the lower the interest rate, the greater the opening balances will be. If the opening balances are calculated on a subsidized basis, less elaborate grandfathering will be required. On the other hand, if special care is not taken, an overly generous conversion could result in windfalls for employees who leave the company shortly after the plan is amended.

5. Vesting

Most cash balance plans have adopted the conventional five-year cliff-vesting approach. However, some companies that are attracted to a cash balance concept opt for an even more liberal vesting schedule, often to dovetail the cash balance plan with more aid vesting that they may have in their savings plan. Furthermore, the vesting provision could vary according to the portion of the plan involved—for example, more rapid vesting for regular balances, but less rapid vesting for minimum pensions (subject, of course, to the Code's minimum vesting rules).

6. Benefits at Retirement

By its nature, a cash balance plan will be communicated to employees with reference to individual balances. Although this does not necessarily mean that benefits must be available as lump sums, availability of a lump-sum distribution is usually one of the attractions of the cash balance concept. Of course, since the plan is qualified as a pension plan, the normal form for a married employee must be a joint-and-survivor annuity, unless the spouse agrees otherwise.

In any case, a cash balance plan is well equipped to offer annuity options. The retiring employee has a certain amount of money to spend, and the plan can make a variety of choices available. The choices are likely to be attractively priced, since the plan has no selling expense or profit as would an insurance company. Available options typically would include straight-life annuities, various joint-and-survivor options, and lifetime annuities with minimum guarantees.

7. Benefit Subsidies

Traditional pension plans commonly incorporate subsidized benefits in order to encourage desired behavior on the part of participants, such as early retirement or joint-and-survivor elections. Where the employer has concluded that these subsidized benefits have become cumbersome, expensive, or unfair, the introduction of a cash balance plan may present an opportunity to phase them out or rethink them. On the other hand, employers that wish to facilitate early retirement or joint-and-survivor elections can do so in a cash balance plan by providing attractive prices for these options.

8. Early-Retirement Windows

Cash balance plans can be easily adapted to incorporate early-retirement window benefits. For example, the account balance of those who elect the window could be increased by X percent. Alternatively, accounts could be increased to equal their projected value Y years hence—such as 5 to 10 years. In either case, the annuity conversion tables in the plan could also be temporarily liberalized to encourage those who prefer monthly income in lieu of the lump sum.

TRANSITIONAL CONSIDERATIONS

1. Potential Problems

As was mentioned previously, to the extent that cash balance plans redistribute benefits from long-service employees to short-service employees, a conversion of a traditional pension plan to cash balance can adversely affect certain employees:

- For older employees approaching retirement, the conversion to cash balance may result in a reduction in projected retirement benefits. They will henceforth be receiving the same incremental benefit values annually as younger employees (not 10 to 20 times greater values as under the prior plan), but will not benefit from the longer duration of compounding interest, to which the younger employees will be inured.
- For mid-career employees (e.g., middle-aged employees with 10 to 20 years of service to their credit), the opening balance of their cash balance account will likely be worth less than what they would have accrued if the cash balance plan had been in effect since their date of hire. These employees can get whipsawed on the other end also; under the cash balance plan, they can no longer expect to receive the higher accruals at the older ages that they had been anticipating under the previous plan.

Figure 2 illustrates such a potential shortfall for an employee who, at date of conversion, is age 45 with 15 years of service. Bar one shows that the traditional final-average-pay plan would provide retirement benefits equal to 317 percent of final pay, with 22 percent earned for past service (15 years) and 295 percent to be earned over future service (20 years). A comparable cash balance plan (bar two) would have quite different benefit values for past and future service—106 percent for past service (instead of 22 percent) and 214 percent for future service (instead of 295 percent).

Thus, the net result of switching to cash balance for this employee, absent any special transition provisions, is twofold, as shown by bar three: (1) He retains the benefit earned under the traditional plan for his 15 years of past service (22 percent from bar one) and, in the future, (2) he will earn regular cash balance benefits (214 percent), so if this employee is to receive payment equal to the traditional plan, the new cash balance plan must find a way to provide additional transition benefits worth about 82 percent of final pay (bar four). Fortunately, there are various ways to accomplish this, as discussed in the following subsection.

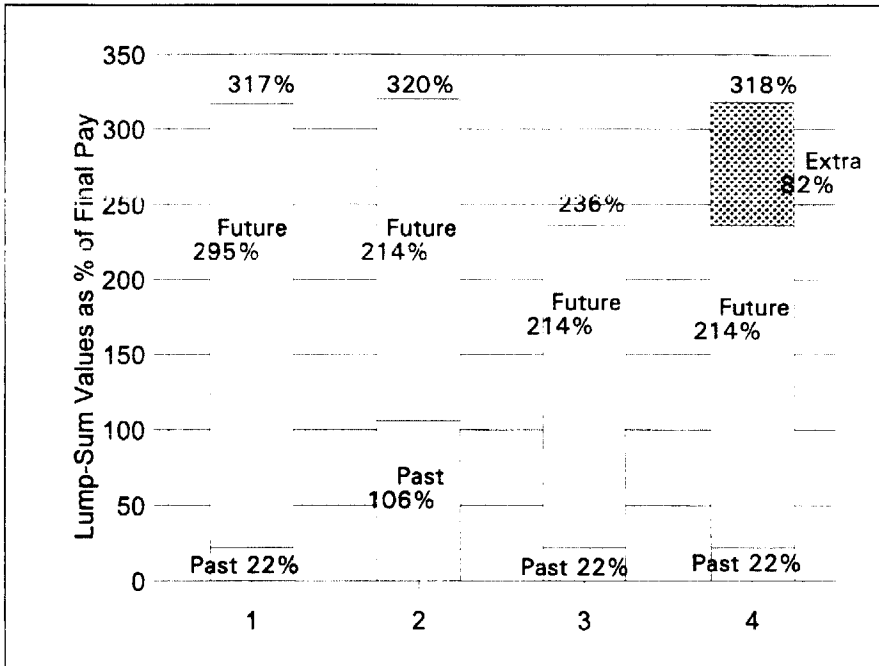
2. Suggested Solutions

There are several possible approaches to solving these types of transitional problems:

- The greater the amount credited as the starting balance, the less the likelihood of encountering employee dissatisfaction or retirement shortfalls. Thus, a generous employer can consider computing the initial balance using a somewhat lower interest discount rate, a mortality table that reflects a

somewhat longer life expectancy, or in plans that subsidize early retirement—an early retirement age (e.g., age 62) rather than the normal retirement age of 65. The latter change alone will generally increase initial account values by 25 percent to 33 percent for employees under age 62. In future years, a higher interest credit could also apply to this portion of the employee's account.

FIGURE 2
Conversion to Cash Balance Plan
for Employee Age 45 with 15 years of Service



- 1 Final average pay plan only
- 2 Cash balance plan only
- 3 Cash balance plan without transition credits
- 4 Cash balance plan with transition credits

- Alternatively, supplementary additional future-service benefit credits (over and above the regular pay-based credits) can be provided for older, long-service employees. For example, if the regular annual pay-based credits are 5 percent of pay, affected employees might receive an extra 8 percent, or 13 percent in total for the next 10 years. Or, the amount of the supplementary credits could vary based on a "point criterion" (age plus service) at date of

conversion, or some other sliding scale, so as to more accurately target anticipated benefit shortfalls. In such a case, the formula for determining the amount of the supplementation would typically be calculated by reference to a comparison of the old and new plan benefits projected to retirement, and by designing a supplemental credit stream such that its accumulated value will bridge any undesirable shortfalls. Thus, in theory, each employee could have his or her own individual supplemental benefit rate. More commonly, a general pattern emerges that can be smoothed to a simpler, more easily communicated table or scale.

- A more direct approach would be to provide, through a “dynamic grandfather,” that the benefit for adversely affected participants will in no event be less than if the preexisting plan had remained unchanged. Because cash balance plans are defined-benefit plans, the employer can simply underlay whatever minimum benefit is desired, thereby guaranteeing the prior level of benefits. In most cases the natural choice, of course, would be the prior plan’s pension formula, either on a temporary or permanent grandfathered basis.
- A variation on this approach would be to make the benefit comparison between the old benefit formula and the new cash balance formula up front (as of the date of plan conversion), rather than wait until each employee actually retires. This would involve projecting both to retirement and crediting the present value of any projected shortfall to a special “transition account.” If the projection assumptions represent a reasonable estimate of expected future experience (especially with regard to assumed interest credits, pay increases, and retirement age), most employees will be satisfied that a good-faith effort has been made to accommodate them. This approach can eliminate a good deal of future administrative work, as compared with the dynamic grandfather approach.

Of course, regardless of the mechanism chosen to protect employees who would otherwise be adversely affected by the transition, care should be taken to prevent windfalls for those who might terminate shortly after plan conversion. An “earn-out” provision will generally alleviate these concerns.

3. The Role of the Savings Plan

The role of any accompanying savings plan should also be considered when evaluating the efficacy of any special transitional measures. While in the past such plans were often adopted without an adequate corporate definition of their role in the company’s retirement program, the great popularity of these plans—and the government’s determination to limit access to savings plan benefits prior to retirement—makes it imperative to include such benefits as a component of the third leg of the well-known three-legged retirement stool (pension, social security, and savings). Some companies might want to beef up savings benefits as a part of the cash balance conversion process, while a few, which may have gone “too far” in liberalizing savings plan benefits at the expense of the pension plan, might consider

moving some future benefits from the savings plan to the new cash balance plan. Because employees will know exactly how much is in their cash balance accounts all during their career and can easily have their accounts projected forward to retirement, those employees who feel they need still greater benefits can ensure benefit adequacy by increasing their pay-ins to the company's savings plan. As intended, this provides a strong cost-sharing inducement for employees, generally on a tax-effective 401(k) basis.

RECENT DESIGN INNOVATIONS

1. Interest Enhancements

A key goal in formulating the cash balance concept in the 1980s was to find a way to make an employer's pension plan as attractive to the work force as its savings plan. Recently, several employers have sought to exceed that original employee acceptance level by designing a plan that it was hoped would be even more popular than the company's savings plan. Noting that the interest earned or credited in their savings plan is probably one of its most visible and appealing characteristics, these employers have given special emphasis to this element in their cash balance plans, by providing "enhanced" interest credits. Since most savings plan participants tend to invest the bulk of their savings in conservative fixed-income investments, these cash balance plans credit a rate that generally exceeds prevailing fixed-income rates.

For example, future-service pay credits could receive an interest credit each year equal to the one-year Treasury bill rate plus 300 basic points, while the past-service part of the account (i.e., the opening balance) could receive a rate equal to 125 percent of the future-service rate. Thus, for example, if the one-year Treasury bill rate were 6 percent, future-service pay credits would receive a 9 percent interest rate while the opening balance would receive an 11.25 percent interest rate. While there is obviously a cost involved in crediting these higher interest rates, it can be mitigated (or in certain cases even eliminated) by some appropriate horse trading. That is, if Company A was originally prepared to offer a 5-percent-of-pay plan, it might decide instead to lower the 5 percent benefit somewhat in order to offset the added cost of the enhanced interest credits. Since both the pay credits and interest credits are, in reality, defined benefits (the costs of which are determined actuarially) a "5 percent pay credit/7 percent interest" plan might cost about the same as a "4 percent pay credit/8 percent interest" plan. For the same reason, the enhanced interest rate does not directly relate to investment fund performance. That is, the pension fund does not need to be expected to earn this higher interest rate.

In addition to making the cash balance plan extremely attractive to employees, enhanced interest credits can also serve other useful purposes for the employer. For example, most plan administrators would love to be rid of grandfather provisions in their plan. Often these are a bewildering tangle of holdovers resulting from prior plan amendments and various acquisitions, and their administration generally requires a disproportionate amount of time and expense. An enhanced interest approach may, during transition to a cash balance plan, permit such grandfathers to

be eliminated, simply by determining empirically the amount of extra interest required to keep grandfathered employees whole. Although this provides a somewhat less ironclad guarantee than the burdensome and ongoing grandfather minimum calculations, if the employer makes its best good-faith effort in determining the required extra interest (e.g., by utilizing realistic assumptions as to future pay increases and retirement ages) and openly communicates the process, affected employees will usually find the approach acceptable.

2. Floor Benefits

Many employers, for various reasons stemming from both the human resources and financial sides of the house, are anxious to move completely away from a traditional plan, but others who may appreciate cash balance's virtues are not yet ready to do so. For employers in this latter group a "floor benefit" approach may be appropriate, whereby a cash balance feature is added to the traditional plan as a minimum, or floor, benefit. Certainly, there is nothing new about a defined-benefit plan having multiple benefit formulas.

Under this approach, as employees begin to enter the retirement zone, particularly fast-track individuals, they will retain the higher benefit accruals of the traditional plan, while younger employees will enjoy the higher benefit values of the cash balance floor. Conceptually, this arrangement is merely an extension of the dynamic grandfather approach often used when a traditional plan is converted to cash balance, whereby designated employee groups already in the retirement zone receive the greater of the old and new benefit formulas. The floor approach simply extends this concept to all employees, thus clearly guaranteeing that no employee can ever be disadvantaged by the change in plan.

An ancillary advantage of this approach is that it should help nondiscrimination testing, since younger employees are predominantly non-highly compensated and will now be receiving the higher benefit accruals of the cash balance floor. Thus, if the traditional plan by itself was having trouble passing the tests, adding such a floor benefit is likely to help it pass.

It should be noted that while the approach is often considered, since it provides employees with "the best of both worlds," it is less often adopted because of the added cost and administration involved. Obviously, a dual-formula plan will cost more than either benefit formula by itself, and most employers are reluctant to add a floor which, in their view, provides more to the people who do not stay to retirement.

3. Forced Retirement Savings

The company's objective in this cash balance variation is to increase retirement benefits without adding to total compensation costs—a goal that many employers would love to achieve. It can be accomplished rather easily—for those employers willing to bite this bullet—by simply moving money from the left pocket to the right pocket. In this case the employer moves a portion of annual pay increases to

the pension plan, as cash balance subaccounts, so that cash is traded for pension benefits.

Let us suppose, for example, that Company *B* was expected to grant annual pay increases, which are projected to average about 5 percent over future years. It now decides to force 40 percent of those future raises (2 percent of pay) to be saved for retirement by adding cash balance subaccounts to its pension plan, which will be credited with 2 percent of pay each year. So, in the future, pay raises will average only 3 percent instead of 5 percent but pension plan benefits will be increased by 2 percent of each year's pay (plus interest). Notice that the new subaccounts can be added to either a traditional or a cash balance plan.

This scenario is probably most effective for the employer when the pension plan is overfunded. Then the new subaccounts can be credited with 2 percent of pay without requiring any pension contribution, so that the change has generated a positive cash flow equal to 2 percent of payroll. Furthermore, the employer realizes Federal Insurance Contributions Act savings with respect to employees whose salaries are less than the social security taxable wage base. For the long term, however, this approach faces some potentially challenging issues:

- Will corporate discipline be strong enough to permanently maintain a reduced level of pay increases? If not, Company *B* has just increased its total long-term compensation costs by 2 percent of payroll.
- In a related vein, what about competitive pay pressures? Giving 3 percent pay increases rather than 5 percent means that after 10 years this company may be about 20 percent below competitive levels. Given that employees tend to value cash over pension, will pointing to the accumulated 2 percent pension subaccounts be an effective response to employees?
- Unless the subaccounts are fully and immediately 100 percent vested, employees have obviously lost some overall compensation value through the exchange.
- Theoretically, it would appear that there may be some loss of individual equity because of future pay raise compression. That is, all those employees who would have gotten pay raises of less than 2 percent (or a pay decrease) will now receive the same 2 percent (through the pension plan). To keep things whole and to pay for this option, the company would have to further reduce future pay increases for those who would have otherwise been entitled to pay increases in excess of 2 percent.
- Will employees suffer some future erosion with respect to other pay-related benefits, such as life insurance, disability, or severance? In addition, if the underlying pension vehicle is not a cash balance plan but rather a traditional final-average-pay plan, it is probable that some net pension loss will occur (since the subaccounts added are based on career average pay rather than final

average pay). In such situations an employer could decide to “gross up” the subaccounts on some roughly equivalent bases (e.g., provide 2.5 percent rather than 2.0 percent).

4. A Severance Pay Variation

In a variation on the cash balance theme that is sometimes call a “pension equity plan,” the basic pension benefit is still defined as a lump sum, but it is one based on a multiple of pay at retirement. For example, if the plan provided a pay credit of 12 percent for each year of service, after 30 years an employee would retire with a lump sum equal to 360 percent of final pay, a 3.6 multiple.

In examining this approach, it becomes clear that there is really no “account” per se. Further, there is no explicit interest rate operating: The implicit interest rate is, in effect, equal to the employee’s annual pay raise percentage. Whether this severance pay approach (which lacks an explicit account and an explicit interest credit) will prove popular is difficult to foresee at this point because it is a relatively new variation, but it adds another useful tool to the benefit designer’s toolbox.

As employers consider this variation, they should bear in mind a few important considerations. On the plus side there is ease of communication and administration. Moreover if an employer prefers benefits related to final pay rather than career pay, this plan may be ideal. However, risks include a potential for less predictable growth in employees’ benefit values and, by the same token, costs that are likely to be less stable than in a typical cash balance plan.

5. The Postretirement Health Care Subaccount

Today’s employers are looking for ways to redesign their postretirement medical plans in order to ameliorate the burdensome expense caused by (1) the lack of cost control over medical inflation, and (2) the disproportionate benefit allocations of most plans (i.e., based on marital status, length of service, and early versus later retirement). The postretirement health care subaccounts (PHCSs) discussed here are not intended to solve these huge problems, but rather are intended to address a smaller but specific concern: accumulating the means to permit retired employees to pay for the budgetable portion of their postretirement medical expenses.

Those budgetable expenses are simply the premiums that retired employees (including those in good health) will have to pay to maintain their retiree health care coverage. These include premiums for Medicare Part B, for their own employer’s plan (significant cost-shifting is occurring at present and is likely to continue), for an American Association of Retired Persons or other supplemental coverage plan, and for copayments and deductibles. Such premiums are likely to be material, running well over \$1,000 per annum in some cases (in today’s dollars). At retirement, a PHCS (again in today’s dollars) on the order of \$10,000 to \$15,000 would be roughly adequate to meet such needs and would contribute significantly to a retiring employee’s peace of mind.

A PHCS can be added to either a traditional plan or a cash balance plan as a direct "add-on" or, in certain cases, as a "carveout." The former merely adds the subaccounts as an additional pension plan benefit. To illustrate the latter approach, consider Company C, which is in the process of changing its traditional pension plan to cash balance, with 6 percent annual pay credits to employees' accounts. In communicating the new plan to employees, Company C announces that the first one percent of pay (or \$X) going into the accounts will be dedicated to a subaccount to be used solely for postretirement medical expenses such as premiums. Company C has now established a PHCS for each employee, without adding to the overall cost of its new plan.

Furthermore, if the company decides to operate the subaccounts under the aegis of Section 401(h) or the Code, then a portion of the new cash balance benefit (the first one percent or \$X) has been converted from a taxable benefit to a nontaxable one that is worth about 20 percent to 30 percent more to most employees, at no added cost to Company C. Should the company deem it appropriate, it could also decide not to vest the subaccounts until employees reach retirement age, in which case a dollar of PHCS benefit is likely to cost significantly less than a dollar of regular cash balance benefit. If the PHCSs are operated under Section 401(h), then they are, of course, subject to various specified requirements, including the restriction that funding of the subaccounts must come from future company contributions (not from existing pension fund surplus), with such contributions limited to one third of the normal pension cost (25 percent of the total normal cost).

Of course, an employer may choose to add PHCSs simply as additional pension plan benefits, in which case all the usual pension rules apply. That is, they are then taxable benefits, which employees can utilize for any purpose and they are subject to the minimum vesting rules for pensions (but existing pension surplus can be applied to fund the PHCSs). Both approaches—as 401(h) benefits or as regular pension benefits—are intended to attack a specific area of postretirement employee expense, namely those that are budgetable. Once instituted, however, they also establish an "account" mentality, which could prove helpful should the company decide in the future to institute more fundamental changes, such as moving away from its traditional postretirement medical "entitlement" plan.

6. Discretionary Bonus Credits

From a financial viewpoint, one of the great attractions of profit-sharing plans is their ability to enable the company to contribute more in good years and less in poor years. Since defined-benefit plans (including cash balance plans) are funded actuarially, this flexibility is absent (except to the extent provided within the IRS's maximum and minimum contribution limitations). However, adding a discretionary bonus feature (in the form of additional pay credits) can add significantly to funding flexibility and can inject an element of profit-sharing into the pension plan, thereby providing the company with a greater measure of cost control.

Such additional pay credits would be declared periodically, via a plan amendment by the company in advance of the plan year, and would be loosely tied to some

appropriate measure of corporate performance. These would, of course, be in addition to the regular basic benefit of the plan. For example, if regular pay-related credits equal 5 percent of pay, the additional credits might range from 0.5 percent to 1.5 percent of pay, as declared periodically by the company.

Would this approach violate the well-known IRS prohibition against conditioning defined-benefit plan benefits on profits? If properly designed and implemented, there is a good chance that the answer would be "no." However, the way in which the bonus credits are linked to profits and their relative magnitude would, of course, be key.

7. The Annuity-Only Plan

Since balance plans arrived on the scene a decade ago, it has become clear that while many employers like lump sums, others strongly oppose them. What is more surprising, however, is that some of the latter group, for various reasons, nevertheless like the cash balance concept. While at first this may appear contradictory, employer resistance to lump sums often stems from various legitimate business reasons. Paternalism still runs strongly in some corporate cultures and, noting that the savings plan already pays a large chunk of a retiree's benefits in a lump sum, these employers voice concerns about their employees' retirement security. Still others are worried about their employees' ability to properly manage large lump sums—not only at point of retirement but in later years as well. And, in some cases, financial managers are concerned about the possible effect on the pension fund of lump-sum payouts.

While a cash balance plan without lump sums may sound like an oxymoron, some employers nevertheless believe that many of the major advantages of a cash balance plan are not necessarily linked to lump sums. For example, the level benefit accruals, which provide equal pay for equal work regardless of age, are attractive to some. Other advantages include the high visibility of the account, its explicit growth (communicated through periodic benefit statements), and the fact that employees always know exactly where they stand as to the value of their pension benefit.

Is such a plan practical? We have already seen plans adopted successfully that limit the amount that may be taken in a lump sum (e.g., 50 percent), but not permitting lump sums at all is a tougher call. On balance, provided that the plan is properly communicated, it may be feasible. In this situation an employer may want to consider adding certain features that would enhance employee acceptance, such as subsidizing annuity conversion rates as a quid pro quo for lack of a lump-sum option. Furthermore, the plan would be a socially desirable one since it would provide full portability. A terminating employee would not be able to receive his or her account and spend it, rather it would have to remain in the plan, where it would continue to grow with interest to provide annuity income at retirement. It is likely, of course, that employee pressure to permit at least some part of the account to be taken in cash would build up over time, and whether an employer would be able to resist it (or would want to) would depend on circumstances at that time,

including an analysis of whether up to that time the plan had been successful in terms of meeting employees' retirement needs.

8. The Flexible Cash Balance Plan

It is clear that the plans of many employers will not meet the safe-harbor requirements of the final IRS regulations, and that annual number crunching will be needed to satisfy the general test requirements of the 401(a)(4) nondiscrimination rules. In a cash balance setting, flexibility under these rules will most likely allow some variation in the amount of annual benefit accruals as well as a certain degree of discretion in the allocation of benefit accruals to plan participants.

Working with the intended allocations for the coming year, the flexible plan does its preliminary testing prior to actual allocation, so that in advance the employer knows the answers to such questions as:

- Do the contemplated allocations pass the test and, if not, what are the changes required to enable them to pass?
- By what margin is the test passed and is there room to modify allocations for other design purposes?

While one might surmise that a plan with a variable benefit formula would stand little chance to be a qualified plan, analysis suggests that many—and possibly all—IRS qualification requirements would be satisfied by such a plan. Of course, a key issue is the concept's practicality and acceptance by employees, given the potential variability in annual allocations. In these times employees cannot be expected to live with a "trust me" approach to pensions. This situation could be addressed by adding to the flexible plan a floor benefit, such as 2 or 3 percent of pay, or by adding a minimum benefit guarantee.

9. A Word of Caution

The design innovations just discussed are only some of those currently being considered for cash balance plans, and in some cases for traditional plans as well. A word of caution is in order, however. Because these approaches are new and must comply with the full array of the IRS's new and complex regulations concerning nondiscrimination and coverage (some of which are still to come), what works for one plan may not work for another. Employers should proceed cautiously, with a complete and thorough analysis before any plan changes are adopted. A discussion of legal considerations, as they exist today, follows below.

LEGAL CONSIDERATIONS

1. General Qualification Requirements

Cash balance plans are qualified under the applicable requirements of the Code as defined-benefit plans. As such, they are subject to the same requirements imposed by ERISA and the code that applies to such plans. Note, however, that applicable

law evolved over the years with traditional qualified plans, not cash balance plans, in mind. Attempts to apply the law to cash balance plans at times seems like fitting a square peg into a round hole.

Among the qualification rules that apply to cash balance and other defined-benefit plans are the following:

- Minimum participation rules that limit the age and service requirements that an employer can impose as a requirement of participation in the plan
- Coverage and nondiscrimination rules designed to prevent the plan from discriminating in favor of highly compensated employees
- Vesting rules, which limit the period of required service before an employee earns or becomes entitled to a nonforfeitable benefit under the plan
- Accrual rules, which limit the extent to which a plan may backload benefit accruals
- Rules providing limitations on the amount of contributions and benefits that may be provided through qualified plans on behalf of plan participants
- Minimum funding rules designed to insure the solvency of defined-benefit pension plans
- Minimum distribution rules, governing the timing, duration, and form of benefit payments.

In addition, cash balance plans are subject to ERISA, including the reporting and disclosure requirements of Part 1 of Title 1 of ERISA, the fiduciary responsibility provisions of Part 4 of Title 1 of ERISA, and the plan termination insurance provisions of Title IV of ERISA.

At this juncture, most cash balance plans have been amended to comply with the final regulations under the Tax Reform Act of 1986, and many have already received favorable determination letters. To the extent that legal issues relating to cash balance have yet to be conclusively resolved, government officials have stated publicly that they look favorably on the cash balance concept, and that any inconsistencies in the current law insofar as it relates to cash balance plans will be favorably resolved. Consistent with these pronouncements, the final nondiscrimination regulations specifically acknowledge cash balance plans, as evidence of the fact that the IRS recognizes cash balance as a viable qualified pension plan format.

2. The Final Nondiscrimination Regulations

Although the final nondiscrimination regulations contain a cash balance safe harbor if certain conditions are met, few if any plans are designed to be able to take advantage of it. This safe harbor is found in the "cross testing" rules (i.e., special

rules under which defined-benefit plans are tested on the basis of equivalent contributions and defined-contribution plans are tested on the basis of equivalent benefits). Under this safe harbor, a cash balance plan may be tested on the basis of the hypothetical allocation formula used to determine an employee's cash balance account, rather than on the actual benefits provided under the plan. A safe-harbor formula would have to be either a uniform allocation formula, or a formula that would pass the general test under the Section 401(a)(4) defined-benefit rules (assuming that the compensation-related credits were actual contributions to a defined-contribution plan). Unfortunately, certain special safe-harbor requirements would straightjacket cash balance plans into designs that are impractical. Therefore, cash balance plans almost invariably demonstrate compliance with the applicable nondiscrimination rules by satisfying the general test. This alternative path to compliance involves the calculation of benefit accrual rates for each participant and a comparison of relative coverage at each rate by the highly compensated and nonhighly compensated employees. As compared to traditional plans, cash balance plans rarely have trouble demonstrating compliance with the Section 401(a)(4) general test, primarily because the annual current-service credits to accounts are typically stated in terms of a fixed percentage of compensation. Generally speaking, such an age-neutral accrual pattern tends to be relatively more generous to younger employees (who tend to be relatively lower paid). Traditional plans (e.g., final-average-pay plans) typically have more trouble with the test because their accrual pattern is inherently more backloaded.

3. IRS Provides Long-Awaited Cash Balance Guidance

For several years the benefits community has been anticipating guidance from the IRS relating to the operation of cash balance plans. One issue of particular importance has been whether the IRS would require that, under certain circumstance, an employee receiving a lump-sum distribution be paid more than the account balance to fully satisfy the plan's obligation.

IRS Notice 96-8 expresses the IRS' intention to publish regulations in the future on that issue, sets forth the agency's preliminary thoughts on what the guidance will be, and asks for comments. The Notice indicates that the IRS is open to suggestions before it issues proposed regulations. But, if most existing cash balance plans are not to be adversely affected and if employers are to be allowed adequate flexibility in designing such plans in the future, the regulations will need to clarify and expand on the proposed guidance.

- (a) *The Interest Credit Basis.* An important element in cash balance plans is the rate of hypothetical earnings by which account balances will grow. This "interest credit" basis, which must be defined in the plan document, is commonly tied to a variable index such as the rate on one-year Treasury bills.

In 1991, when a "safe harbor" was introduced for cash balance plans under the Section 401(a)(4) nondiscrimination regulations, the IRS took the position

that the minimum lump sum computation rules of Internal Revenue Code Section 417(e) ("417(e)") apply to cash balance plans. The preamble to those regulations suggested that 417(e) applies to cash balance plans generally, not just to plans that wish to comply with the safe harbor.

The 417(e) calculation under the Section 401(a)(4) safe harbor works as follows: First, the employee's cash balance account is increased by interest credits between the employment termination date and the date on which the employee would reach the normal retirement age stated in the plan. This increase is calculated on the assumption that the interest credit rate in the year of termination remains unchanged until the employee's normal retirement age. Next, the projected lump sum amount is converted to an actuarially equivalent annuity. Finally, such annuity is converted back to a lump sum value at the employee's current age using assumptions that satisfy 417(e).

Before the 1994 GATT legislation, the 417(e) calculation commonly could have resulted in a lump sum distribution greater than the employee's cash balance account, especially if received at a young age where the required 417(e) interest rates (i.e., PBGC interest rates) were very low. Yet, very few cash balance plans have reflected that calculation and, therefore, pay lump sums equal to the cash balance account in all cases. In fact, many of those plans have received IRS determination letters.

GATT eliminated much of the potential "whipsaw" by changing the required 417(e) interest basis to the rate on 30-year Treasury bonds. Nevertheless, depending on the plan's interest credit basis and the economic environment at the time of a distribution, the possibility of a whipsaw continues to be an important issue.

- (b) *Preliminary IRS Views.* In Notice 96-8 the IRS continues to express the view that 417(e) must be applied to a cash balance plan. However, under the Notice, if certain conditions are satisfied, a plan can pay lump sums equal to the cash balance account without having to perform the projections and conversions to comply with 417(e) and the Section 411 forfeiture provisions.

The relief provided in the Notice applies only to plans that grant the same interest credits both during and after employment—"front-loaded interest credit plans." (Some cash balance plans reduce the interest credit rate upon termination of employment to some extent—the Notice makes it clear that such "back-loaded interest credit plans" must demonstrate compliance with the benefit accrual rules under IRC Section 411(b).) To satisfy this new "safe harbor," a plan's interest credits must be determined with reference to one of several specified indices, with a maximum permitted margin:

<i>BASIS</i>	<i>MAXIMUM MARGIN</i>
Discount rate on 3-month Treasury bills	1.75%
Discount rate on 6- or 12-month Treasury bills	1.50%
Yield on 1-year Treasury Constant Maturities	1.00%
Yield on 2- or 3-year Treasury Constant Maturities	0.50%
Yield on 5- or 7-year Treasury Constant Maturities	0.25%
Yield on 10- or more year Treasury Constant Maturities	0.00%
Annual rate of change in Consumer Price Index	3.00%
PBGC immediate interest rate	0.00%

For example, a “front-loaded” plan would be deemed to satisfy 417(e) if its interest credit basis is the yield on one-year Treasury Constant Maturities plus a margin not greater than 1.00%. However, if the margin for this plan were higher than 1.00%, the 417(e) calculation would apply at the time the employee’s lump sum distribution is made. If that calculation resulted in a lump sum in excess of the cash balance account, the higher amount would have to be paid.

- (c) *Open Issues.* There are many substantive, technical, and policy issues that should be addressed before the IRS issues regulations on this matter. Some of the more important ones are as follows:
- *Level of Maximum Margins.* Presumably, the maximum margins in the Notice were developed by looking at the historical relationship between the yield on 30-year Treasury bonds (i.e., the GATT 417(e) basis) and the discount rates and yields on other Treasury securities. An analysis of these relationships suggests that higher margins could easily be justified.
 - *Fixed Minimum Rates.* Many cash balance plans that use a variable index for interest credits (e.g., one-year Treasury rates) also have a specified fixed minimum credit (typically 4% or 5%). The safe harbor in the Notice does not address such a fixed minimum credit.
 - *Other Rate Bases.* The Notice solicits suggestions for other safe harbor indices. For instance, some cash balance plans set interest credits equal to the investment return on a published fund or index such as the return on the S&P 500. The direction the IRS seems to be taking may not allow the use of such an interest credit under a 417(e) safe harbor.
 - *Ad Hoc Interest Credit Increases.* Some plans prescribe an interest credit basis that complies with the safe harbor, but, from time to time, the plan is amended to specify a higher interest rate credit for a particular year. The Notice does not address this situation.

- *Annuity Conversion Bases.* The Notice discusses restrictions on the actuarial basis for converting account balances to annuities, although it is not entirely clear when such restrictions may apply. If, in order for an interest credit basis to satisfy a safe harbor (and avoid the whipsaw calculation), the annuity conversion basis must produce annuities no higher than those based on the 417(e) interest and mortality assumptions, the unfortunate result would be the inability to “subsidize” annuities.
- *Transition Issues.* When regulations are issued, some plan sponsors likely will want to make changes to come within a 417(e) safe harbor. While the Notice indicates that regulations will be applied prospectively, an important issue is whether a plan that changes its interest credit basis to one that is (or may be) lower than the former basis must “protect” existing account balances on the former basis. The IRS is looking for suggestions in this regard. Hopefully, the proposed regulations will provide some flexibility in applying the anti-cutback rules in order to avoid the administrative complications that otherwise would occur.
- *Good Faith Compliance and Pending Determination Letters.* Under the Notice, for periods before the issuance of final regulations, plans must comply with a reasonable good faith interpretation of the applicable law and existing guidance. Given the lack of existing guidance, it is probably unlikely that the IRS will examine past practice too closely. Plan sponsors that received favorable determination letters under the 1986 Tax Reform Act probably will want to wait until final regulations are issued before making any changes that might be required. It is not yet clear how IRS agents who have pending requests for cash balance determination letters will react to the Notice. Presumably, at least they now will approve plans that satisfy the Notice if there are no other outstanding issues.
- *Plans That Do Not Comply with a Safe Harbor.* The Notice suggests that, if a plan’s interest credit and annuity conversion bases do not satisfy a safe harbor, whipsaw calculations have to be made to determine whether a lump sum amount more than the cash balance account must be paid. In making the whipsaw calculation, a plan will have to specify an assumption for projecting interest credits from termination of employment to normal retirement that does not understate the expected future credits that the employee would be foregoing by taking a lump sum. The Notice does not indicate what the standards might be for determining that assumption.