



# AMERICAN ACADEMY *of* ACTUARIES

---

August 20, 2002

Mr. Jules Cassel, Senior Technical Advisor  
Financial Accounting Standards Board  
401 Merritt 7  
Norwalk, CT 06856-5116

Dear Jules:

We want to thank you for your time and the interest you expressed in our views at our meeting on May 7 where we discussed possible further guidance on the application of SFAS 87 to cash balance plans. At the conclusion of that meeting you asked us to provide (1) information on the prevalence of cash balance plans and (2) our individual views on the nature and appropriate cost attribution methods of cash balance plans.

This letter addresses both requests. Some of the members of our taskforce have provided written statements of their views on number (2) above. These statements are included here as an appendix, but as you had requested, we have attempted to consolidate our several opinions indicating where there is consensus and where there is not.

## **Prevalence of Cash Balance Plans**

The following data comes from a recent survey conducted by Watson Wyatt. The survey shows that in 2002, 33 of the Fortune 100 companies offered “hybrid plans.” Of those 33 hybrid plans, 32 were cash balance plans.

The 32 companies offering cash balance plans in 2002 compared to just one company offering such a plan in 1985. In 2002, 17 of the Fortune 100 companies offered only a defined contribution plan, while 50 offered a traditional defined benefit plan (with or without a defined contribution plan). These statistics are evidence of the significant move from traditional defined benefit plans to cash balance plans over the past 17 years among the largest companies in America.

The Watson Wyatt commentary on the survey suggests, and the members of this task force agree, that many more companies may wish to convert to cash balance plans but are delaying the move until the relevant agencies of the federal government provide clarification on regulatory issues.

## **Characteristics of Cash Balance Plans**

*Is a cash balance plan primarily a defined benefit plan or a defined contribution plan?*

In answering this question it is important to recognize that most cash balance plans were converted from traditional defined benefit plans and retain many traditional defined benefit provisions. Six members of our group view such converted plans as primarily defined benefit (DB) plans but principally because of their other-than cash balance provisions. These same six members view a pure cash balance plan as primarily a defined contribution plan because the benefit promise is couched in terms of an account balance and differs in no material way from the benefit promise in a defined contribution plan.

Five members view all cash balance plans as primarily defined benefit plans. They believe that the plan defines a benefit and the employer assumes the risk of delivering it. Further, cash balance plans are deemed to be DB plans by the IRS.

*If a cash balance plan is to be treated as a defined benefit plan, is it pay-related or non-pay-related?*

Nine of ten members who stated an opinion on this question believe that a pure cash balance plan is not pay-related as that term is used in paragraph 40 of SFAS 87. That paragraph refers to final pay and career pay plans in which the benefit accrued in a given year can be affected by future pay increases. A cash balance plan accrual in the form of a principal credit (the form of accrual that seems most natural to the nine members) is not affected by any future pay increases. Thus a cash balance plan can be considered an accumulation plan in that the benefit accrued at any date is the accumulation of the past credits and future salary changes are not reasonably allocable to accumulated balances.

The Guide to Implementation for SFAS 87, Q&A 50 concludes that career pay plans are pay-related. The nine members of our taskforce who hold that cash balance plans are non-pay-related believe that Q&A 50 needs to be expanded to recognize that accumulation type plans are not pay-related. Note also that there are other forms of accumulation plans that cannot easily be expressed as career pay or final average pay plans (e.g., a plan that provides a benefit of 2 percent of each year's actual pay for the first 10 years of service and 1 percent for each year of service thereafter).

One member of our group expressed the view that it is possible for cash balance plans to comply with Q&A 50 as written by expressing the cash balance plan accruals as actuarially equivalent annuity accruals. He would not object, however, if Q&A 50 were revised to classify accumulation plans as non-pay-related.

### *Nature of the Benefit Accruals*

The benefits of cash balance plans are most often stated to employees in the form of cash accounts. Most plans allow for the distribution of account balances as lump sums in full settlement of any obligations the plan has to the member. Cash balance plans are legally required to offer an annuity form of benefit, and a few plans only provide annuities without a lump sum option.

Six members of our task force believe that the benefit provided by a cash balance plan is primarily the account balance and therefore the accruals should be viewed in terms of the additions to the account balance. This view is based on how most employees and employers view the benefits. Two members view the accrual of benefits as annuities because annuities are the underlying legal requirement of all tax-qualified plans. One member believes that both views are reasonable and one member does not feel this is relevant to the question of determining an appropriate attribution method.

### *Pattern of Benefit Accruals*

SFAS 87 requires the attribution method to follow the attribution pattern of the plan's benefit formula unless the benefits are significantly back-loaded (i.e., benefits accrue mostly at the end of the employee's service period). If benefits are significantly back-loaded, SFAS 87 demands that the attribution reflect a service prorating of projected future benefits. It is not clearly obvious if "pure cash balance benefits" are front-loaded or back-loaded. There are three principal views about how benefits accrue.

- a) Accrual equals the principal credit for a year.
- b) Accrual equals principal credit for a year plus all future interest credits that are not dependent on future service and are attached to that principal credit.
- c) Accrual equals the annuity equivalent of a year's principal credit.

The determination of whether the accruals are front-loaded or back-loaded will reflect which of the above views prevails. All of our members view the benefit accruals in terms of either b) or c) and in either case the benefits would be front-loaded. This will normally be the case even when the principal credit percentages increase with age.

However, the question of frontload versus back-loaded is only an issue if pure cash balance plan benefits are regarded as "pay-related" benefits. Since virtually all of our members do not view these benefits as "pay-related," this distinction becomes unimportant as discussed in the next section.

### **Attribution Approach**

Based on the views stated above, seven of 10 members favor the traditional unit credit (TUC) approach for attributing cost. This view reflects their belief that cash balance plans are either primarily defined contribution plans, or that cash balance plans are defined benefit plans but are not pay-related. In either case, the TUC method closely follows the pattern of benefit accruals under the plan. Several expressed the view that all of the projected unit credit (PUC) alternatives are arbitrary and fail to reflect the pattern of accruals. If the FASB considers cash balance plans to be pay-related, and that some form of PUC method was thus required, most of the task force members favor the PUC method with either a service or principal credit proration. In either case, the members favor using TUC as a minimum.

One member favors the PUC Annuity Accrual Method (described in our earlier correspondence). He holds that the benefit accruals under the plan are the annuity equivalents of the principal credits and that the attribution method must match that pattern of accrual. Because the annuity equivalent accruals are heavily front-loaded, so should be the attributed cost.

One member of our task force offered an alternative method that attempted to reflect the hybrid nature of cash balance plans by using a modified defined contribution form of accounting.

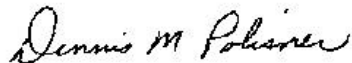
- a) Calculate the projected benefit obligation (PBO) where the PBO for the cash balance benefit is the account balance;
- b) Calculate the service cost, which for the cash balance benefit is the current year principal credit reduced by expected forfeitures in the year;
- c) Calculate the interest cost, which for the cash balance benefit is the interest credit;
- d) Follow DB procedures of deferring and amortizing prior service cost and gain/loss.

\* \* \* \* \*

At our meeting you indicated that if the FASB decides to address this issue, it might either become a subject of the EITF, or alternatively, it might be addressed through guidance by the FASB staff. We would like to understand more clearly what your time frame is to make those decisions and the likely timing of either of the approaches.

We hope that this information is useful to you. We are prepared to discuss any questions that you might have. We are also prepared to offer any further assistance that you may require such as providing additional technical input, commenting on transition, and offering language related to new guidance on this issue. We look forward to your response and to working with you on clarifying this very complex and important pension issue.

Very truly yours,



Dennis M. Polisner, Chair  
Pension Accounting Committee  
American Academy of Actuaries

cc: Taskforce Members

Steve Alpert, Task Force Chair  
Vince Amoroso  
Jim Durfee  
Ethan Kra  
Adrien LaBombarde  
Paul Rangelcroft  
Jay Rosenberg  
Larry Sher  
Bill Sohn  
Ken Steiner  
Tom Toher

# APPENDIX

## Response to the FASB on Cash Balance Plans Hybrid DC Plan Accounting

### 1

Cash balance (CB) plans in their purest state are very much like defined contribution plans. Participants see their benefits as principal credits and interest credits, just like their 401(k) and other defined contribution (DC) benefits. Employers probably view these plans as having characteristics of both. They communicate benefits and pay benefits like their other defined contribution plans but are well aware that the IRS requires them to fund them like a defined benefit (DB) plan.

However, most cash balance plans are not pure in the sense that they are conversions from a traditional DB plan and as such carry other DB features such as annuity benefits, joint and survivor options, grandfather DB formulas, etc. These other features that exist in most plans make it impractical to account for them as a DC plan because there are prior service costs, deferred gains or losses, and no way to segregate assets into DC and DB components. Given the number of DB features and the inability to split the plan between its DB and DC like components, it is not practical to account for them under FAS 87 as pure defined contribution plans.

In both form and substance, cash balance and other "hybrid" plans, which pay benefits predominantly as lump sums, function as apparent DC plans with DB legal underpinnings (or, to say the same thing in a slightly different manner, as legal DB plans with DC appearances). If this is the substantive view of the plan, the accounting should reflect that view.

This calls for a hybrid DC/DB accounting method to mimic the operation of the plan. Under this approach, the basic DB process would be followed, involving the calculation of a projected benefit obligation (PBO) and service cost, the amortization of prior service costs arising from plan amendments, and the deferral of unrecognized net gain or loss within an appropriate corridor. The PBO for participants entitled to future CB plan benefits, however, would be calculated using simple DC accounting as the sum of their current account balances at the beginning of the year. The service cost for such participants would be the sum of the expected principal additions to the individual accounts for the current year reduced by the sum of the expected account forfeitures for non-vested terminations during the year, and interest cost for the plan would be the expected interest additions to the individual accounts for the current year. Following the DB process, net amortization and deferrals (for prior service costs arising from plan amendments and for experience gains and losses) and a reduction for the expected return on plan assets would complete the calculation of net periodic pension cost.

This calculation approach has a number of very important advantages:

- It mimics both the form and substance of the plan—the real and apparent DC and DB benefits provided to the employer and the participants.

- The accounting process is as close as possible to being intuitively apparent to all involved (the plan sponsor, the actuary, the auditor, and the investing public), as DC accounting would be.
- This approach can be used in combination with more traditional projected unit credit (PUC) calculations when cash balance benefits are only a part of the plan provisions (i.e., where traditional DB annuity benefits are found side-by-side with cash balance benefits as components of a total benefit).



**Response to the FASB on Cash Balance Plans**  
**Postscript: PUC – Service Prorate Variation as a Practical Compromise**

[This postscript is in response to all of the committee members' conflicting theoretical arguments in favor of defined contribution (DC), traditional unit credit (TUC), projected unit credit (PUC) – Principal Credit, and PUC – Annuity Accrual:]

After reading all of the arguments from the various committee members, I am struck by the fact that the approach most commonly used for existing cash balance plans is the hardest to justify on a technical and theoretical basis. All the other approaches have technically sound, yet conflicting underpinnings. On the other hand, the PUC – Service Prorate Variation is an eminently practical compromise that does not fit rigorously into the theoretical framework supporting the other alternatives. Thus, the following inventory of the advantages of the PUC – Service Prorate Variation is more free form in nature:

- If you conclude that a cash balance plan is "pay-related" and must therefore use some variation of PUC, paragraph 40 of FAS 87 requires a PUC attribution approach that is "based on the plan's benefit formula to the extent that the formula states or implies an attribution." The argument over whether the plan's benefit formula should be thought of in terms of a principal credit or an annuity accrual has become too theoretical. If you discuss this issue with plan sponsors, you get a surprisingly predictable response to what appears to be a rephrasing of the question. Every cash balance plan sponsor I have ever met has told me that their desire was to provide benefits that were approximately uniform throughout an employee's career. It is obvious that those who provide equal principal credits at all ages see that uniformity in terms of principal credits, but those who provide principal credits that increase with age and/or service almost invariably describe their reason for that design as being a desire to provide *annuity* accruals that are approximately uniform throughout an employee's career. No one says they want accruals that increase or decrease with age, but different sponsors have different goals in mind when they describe their plans' accruals as "uniform." Since everyone's goal is approximately "uniform accruals," the PUC variation that most closely parallels that goal is the Service Prorate Variation.
- The TUC minimum, applied on a life-by-life or decrement-by-decrement basis, is an important element of the PUC – Service Prorate Variation. That minimum guarantees that the attribution approach will not stray from the benefits provided by the plan. A strong argument could be made that the TUC minimum ensures that the attribution approach will be "based on the plan's benefit formula."
- Practically speaking, the PUC – Service Prorate Variation (including a TUC minimum) yields results that meet a reasonable "smell test." They are neither back-loaded (as can occur with the PUC – Principal Credit Variation when principal credits are age and/or service graded) not front-loaded (as can occur with the PUC – Annuity Accrual Variation when principal credits are uniform). The calculations can take

future pay increases into account (as TUC alone cannot) and can incorporate the full range of DB present value calculations (as Hybrid DC accounting cannot).

## Response to the FASB on Cash Balance Plans

### 2

Please address the questions posed below. Based on your view you could be finished at an early point. However, please continue and address the remaining issues on the premise that the FASB does not agree with your earlier view and now must address the later questions.

1. Are cash balance plans defined benefit or defined contribution plans for accounting purposes?

*A cash balance plan is a hybrid arrangement that has both defined contribution and defined benefit features. It resembles a defined contribution plan in that it promises a lump sum distribution in the future based on a stipulated set of contribution credits and a stipulated interest crediting rate or rates. It resembles a defined benefit plan in that it may offer life annuity options, it may offer an interest credit rate in excess of what is obtainable in the market, and it may offer transitional, grandfathered or alternative benefit formulas of a purely defined benefit character. If the cash balance plan is funded, contributions and trust earnings are unrelated to contribution and interest credits. Careful analysis of the actual benefit promise is required in every case.*

*A “pure” cash balance plan pays lump sum distributions equal to account balances that are based on stipulated contribution and interest credits, and the interest crediting rate is no more than a rate available in the market. Annuity options are rarely exercised and there are no alternative defined benefit formulas. The benefit promise is almost entirely a defined contribution promise and might well be accounted for as such. If a participant elects an annuity option, the election could be treated as a transfer of liability from a defined contribution to a defined benefit plan.*

*(The foregoing treatment has theoretical appeal but runs contrary to prevailing practice. We believe that it is almost universal to distinguish between defined benefit plans and defined contribution plans on the basis of the bright-line rule used by the IRS to distinguish the two types of plan – i.e., only a pure individual account plan is a defined contribution plan. Any change from current accounting treatment could require significant transition advice.)*

2. If defined contribution plans, then FAS 87 defined contribution accounting should be followed.

*See response to Number 1 above.*

3. If defined benefit plans, then an attribution method must be selected.

*Similar plans of benefit should be accounted for similarly. If cash balance plans are to be accounted for as defined benefit plans, the attribution method most similar to defined contribution plan accounting is traditional unit credit. For that reason, and because all the variants of projected unit credit seem unsuitable, as discussed below, we favor traditional unit credit.*

4. If CB plans are defined benefit plans, are they pay-related or not? In answering this question you do not need to be constrained by Q&A 50. You may want to propose a different term to replace pay-related in this discussion, but if you do so you should start with an explanation of why that term is no longer appropriate. Depending upon the outcome, FASB may have to change this Q&A. If you think that is the case, you should also deal with the issue of how changing Q&A 50 will affect the type of plan it originally discussed—the old-fashioned DB accumulation plan.

*The answer to Q&A 50 of the Implementation Guide says that an accumulation plan is a pay-related plan, and FAS 87 prescribes projected unit credit (PUC) for a pay-related plan. Those actuaries who do not use traditional unit credit (TUC) for cash balance plans usually point to this answer as justification for their views. We disagree for the following reasons.*

*Traditional unit credit was initially a funding method, devised by actuaries, that was used for all defined benefit plans. It was found, in practice, that applying traditional unit credit to a final-pay plan (e.g., 1-2/3 percent of final-3 year average pay per year of service) could result in a significant back-loading of cost, especially when pay increased sharply. Projected unit credit was devised as a modification of traditional unit credit that might be used for final pay plans without unduly deferring the recognition of cost. In practice, PUC is usually applied (exceptions must be made for pension equity plans, indexed salary plans and possibly other sorts of plans) to the calculation of the projected benefit obligation (PBO) by substituting projected final average pay for current average pay in the formula for the accumulated benefit obligation (ABO). Note that the PBO as so calculated does use projected future salaries but never involves future benefit crediting rates.*

*An examination of ABOs for a participant in a cash balance plan will not show the kind of back-loading that is apparent in a final-pay plan. Instead it will show a pattern still less back-loaded than an accumulation plan (whether expressible as a career-average plan or not). Alternatively, an examination of the accrual of benefits in terms of annuities payable at some future decrement date will show that the benefits in a cash balance plan are distinctly front-loaded. Accordingly, we are inclined to believe that a cash balance plan should be accounted for under traditional unit credit.*

*A cash balance does not base benefits on average salary. The benefit attributed to past service, no matter how measured, will never depend on contribution crediting rates after the determination date. Other than by expressing the benefit in the unnatural form of an interest indexed annuity (for which ABO and PBO are roughly equal anyway), the accumulation process cannot be duplicated by finding an average salary and substituting it in a formula. Thus, any reasonable attempt to take future salary levels into account involves the projection and proration of the benefit payable from the plan. We do not find any justification for project and prorate methods in FAS 87 (except in an unrelated context). Again, our conclusion is that traditional unit credit is appropriate on the basis that it accurately reflects the incidence of accruals while the project-and-prorate methods do not.*

*The meaning of pay-related is a matter for the Board. We hope the Board agrees that a pay-related accrued benefit is one that can increase with increasing pay even if no future contributions are credited.*

5. If CB plans are not pay-related (or whatever term replaces that one), then TUC would apply.

*Correct.*

6. If CB plans are pay-related, then a variation of PUC must be selected.

*As stated above, FAS 87 gives no authority for project and prorate methods. Actuaries have used such methods because of a perceived requirement to take future salaries into account and an inability to do so without using a project and prorate method.*

7. Assuming CB plans are pay-related, do you see them as plans that provide cash accounts or plans that provide annuity benefits?

*The primary benefit offered by the cash balance plans with which we are acquainted is a lump sum equal to the account balance.*

8. What are accrued benefits – an account balance or a deferred annuity?

*In common parlance, the accrued benefit of a cash balance plan is the account balance. For some IRS purposes (but not all), an accrued benefit must be calculated as the account balance converted to an annuity benefit payable at normal retirement date.*

9. Are benefits back-loaded or front-loaded?

*Compared to either final-pay plans or career- average pay plans, the benefits payable from cash balance plans are heavily front-loaded.*

10. What attribution alternative best tracks how benefits accrue?

*Traditional unit credit makes sense (assuming DB accounting). The others are highly artificial.*

11. Is there more than one alternative that might be viewed as appropriate or reasonable?

*If one of the project and prorate variations were to be prescribed, then the straight line prorate method (or the principal credit prorate method in the case of stepped accrual rates) with ABO minimum at least has the benefit of simplicity. The annuity accrual method is an artificial construct that generates PBOs in excess of account balances and should be rejected for that reason alone.*

## Response to the FASB on Cash Balance Plans

### 3

Please address the questions posed below. Based on your view you could be finished at an early point. However, please continue and address the remaining issues on the premise that the FASB does not agree with your earlier view and now must address the later questions.

*Note: Paragraph references are from FAS 87*

1. Are cash balance plans defined benefit or defined contribution plans for accounting purposes?

*Cash balance plans are pension plans that have characteristics of both defined benefit and defined contribution plans. Under paragraph 66, the ‘substance’ of the plan must be considered. From the perspective of the employee, a cash balance plan seems like a typical defined contribution plan, providing specifications for how an individual account will grow over time with principal and interest credits each year. Annuity benefits can be provided at the time of distribution in an amount determined as a function of the accumulated account balance, but these are rarely communicated until a benefit distribution is pending. However, from the perspective of the employer, the plan operates in the same fashion as a typical defined benefit plan (i.e., the employer’s current “financial obligation” is not satisfied by making a prescribed contribution to the plan under the plan’s terms, but to reserve over time amounts that can accumulate to the value of the benefit due at the time of distribution to each participant pursuant to the plan’s terms). Under the Internal Revenue Code, cash balance plans are usually qualified as defined benefit plans; paragraph 240 indicates that the definition of defined contribution plans in the Statement follows the IRC and ERISA criteria.*

*I believe that the accounting for defined benefit plans more appropriately reflects the nature of the financial obligation assumed by the employer by sponsoring the cash balance plan. The defined benefit approach has clearly dominated practice so far and should be continued.*

2. If defined contribution plans, then FAS 87 defined contribution accounting should be followed.

*If defined contribution accounting should be followed, then issues must be addressed concerning how to integrate the accounting for benefits pursuant to the cash balance formulas with the accounting for the traditional pension benefits that are almost always included in the same plan as a minimum or supplemental retirement benefits for many of its participants at the time of conversion to cash balance. I suppose approaches that have been developed in the past for floor-offset plans could be applied.*

*A further issue arises regarding the accounting for the benefit for a participant who chooses an annuity form of payment from the plan. Benefits paid to retired employees could be accounted for as a defined benefit plan where substantially all participants are inactive.*

3. If defined benefit plans, then an attribution method must be selected.

*The method should, according to paragraph 40, attribute “pension benefits to periods of employee service based on the plan’s benefit formula to the extent that the formula states or implies an attribution.” Where the plan provides benefits that are significantly back-loaded, the total projected benefit must be considered to accumulate uniformly over years of service until vested. The traditional unit credit (TUC) method is the one that fits most closely to the manner in which the benefit formula attributes projected plan benefits to years of service.*

4. If CB plans are defined benefit plans, are they pay-related or not? In answering this question you do not need to be constrained by Q&A 50. You may want to propose a different term to replace pay-related in this discussion, but if you do so you should start with an explanation of why that term is no longer appropriate. Depending upon the outcome, FASB may have to change this Q&A. If you think that is the case, you should also deal with the issue of how changing Q&A 50 will affect the type of plan it originally discussed—the old-fashioned DB accumulation plan.

*I interpret the term “pay-related” to mean that the amount of the benefit attributed by the plan’s formula to a year of service can be based on compensation earned in the future. Since the additional pension benefit earned by an employee in a cash balance plan for a year of service under the plan’s benefit formula cannot be affected by compensation earned in any subsequent year, a cash balance plan is not pay-related.*

*This condition also applies to the old-fashioned DB accumulation plan. There is a substantive difference in employer commitment with respect to a plan annuity benefit that is 1 percent of each year’s pay (accumulation plan) versus 1 percent of final career-average pay. Each formula may provide the same ultimate retirement benefit in this case, however, that is the case only because the accrual rate for each year of service is constant. It may be possible to find a traditional “pay-related” formula that could produce similar retirement benefits to those in a more typical accumulation plan (e.g., one with integrated accruals with periodic updates), but such alternative formula would probably not look very much like the one in the actual plan (unlike the condition described in Q&A 50). This would probably be even more prevalent in connection with cash balance plans.*

*A clarification to Q&A 50 should be made to treat an accumulation plan as non-pay-related under FAS 87. If a change in guidance is made, the change in the*



*projected benefit obligation (PBO) resulting from a change in the attribution approach should be treated the same as a plan amendment (i.e., as negative prior service cost) since the prior accounting as a pay-related plan had reflected a benefit formula expressed in terms of compensation averaged over an extended period of time that is now being changed to the actual plan terms.*

5. If CB plans are not pay-related (or whatever term replaces that one), then TUC would apply.

*Yes.*

6. If CB plans are pay-related, then a variation of PUC must be selected.

*Yes, unless the definition of that term is further clarified to exclude accumulation plans with pay-based accruals or a new class of plans is created.*

7. Assuming CB plans are pay-related, do you see them as plans that provide cash accounts or plans that provide annuity benefits?

*The formulation and communication of the benefits from a cash balance plan start with the cash account. I do not think that the form in which the plan's benefits are paid should affect the accounting if optional forms are roughly actuarially equivalent to one another. Appropriate assumptions about the form of payment should be made to determine the present value of the plan's benefits to arrive at the benefit obligation and cost.*

8. What are accrued benefits – an account balance or a deferred annuity?

*The benefit earned under a cash balance plan each year is the principal credit under the plan's formula with a right to future interest credits until the date benefit payments start. Thus, the accrued benefit at any time is the account balance with the right to future interest credits until payments begin. The amount of deferred annuity is not often explicitly defined in a cash balance plan nor communicated to employees.*

9. Are benefits back-loaded or front-loaded?

*The answer to this question depends on whether an accrual for the year equals (a) the sum of the principal credit for the year of service plus the interest credit on the account balance at the beginning of the year or (b) the principal credit plus the expected value of all future interest credits on that year's principal credit. As noted above, I believe this answer to be (b). (If a part of the interest credit depends on whether the participant is actively employed during that year, then such portion of the interest credit should be included in the accrual for the year of service.) Therefore, benefits under cash balance plans tend to be front-loaded (i.e., the portion of the total projected retirement benefit amounts created by*

*accruals in the early years of service are usually greater than those for later years of service) although factors regarding the level of interest credits and salary increases may produce a different expected pattern. Cash balance plans typically provide for increasing rates of principal credits with increasing service that could reduce or eliminate the extent of the front-loading.*

10. What attribution alternative best tracks how benefits accrue?

*TUC is the alternative that best tracks how benefits accrue in a cash balance plan.*

*If the conclusion is reached that cash balance plans must be treated as a “pay-related” plan, the substitution of an indexed career average pay formula, where indexing is provided through date of benefit commencement at the rate of the interest credit, for the cash balance formula is most appropriate. The PUC – Principal Credit variation intuitively fits the manner in which this substituted formula attributes the projected benefit to years of service.*

11. Is there more than one alternative that might be viewed as appropriate or reasonable?

*PUC – Service Prorate with the ABO minimum might also be appropriate if the effects of future interest credits, salary increases, and pattern of principal credits serve to produce a fairly uniform pattern of benefit accruals or to create a back-loaded plan.*

## Response to the FASB on Cash Balance Plans

### 4

Please address the questions posed below. Based on your view you could be finished at an early point. However, please continue and address the remaining issues on the premise that the FASB does not agree with your earlier view and now must address the later questions.

1. Are cash balance plans defined benefit or defined contribution plans for accounting purposes?

*Since a cash balance plan defines the amount of pension benefit to be provided, it should be considered to be a defined benefit plan in accordance with paragraph 11 of SFAS 87. Under paragraph 64, the net periodic pension cost for a defined contribution plan is the contribution made to the plan. Since the employer's obligation under a cash balance plan generally exceeds the obligation to simply make contributions to the plan, it should not be accounted for as a defined contribution plan.*

2. If defined contribution plans, then FAS 87 defined contribution accounting should be followed.

*See above.*

3. If defined benefit plans, then an attribution method must be selected.

*This is the clear implication of paragraphs 40-42 of SFAS 87. On the other hand, in light of the development of newer types of defined benefit plans, it may make sense to revisit the concepts discussed in paragraphs 138 through 143 regarding reflection of future compensation levels in liability measurements. Since it is clearer now than it was at the inception of SFAS 87 that the projected benefit obligation (PBO) measurements are designed to represent a market value of a plan's liability, the current attribution methodology applied to certain types of plans can overstate the market value of an employer's obligations. The use of the traditional unit credit (TUC) for all types of defined benefit plans would eliminate this problem and would be consistent with the Board's objectives as expressed in Paragraph 6 of SFAS 87. It would also eliminate biases that have developed against traditional pay-related defined benefit plans when such plans are compared with defined contribution or hybrid pension plans.*

4. If CB plans are defined benefit plans, are they pay-related or not? In answering this question you do not need to be constrained by Q&A 50. You may want to propose a different term to replace pay-related in this discussion, but if you do so you should start with an explanation of why that term is no longer appropriate. Depending upon the outcome, FASB may have to change this Q&A. If you think that is the case, you should also deal with the issue of how changing Q&A 50 will

affect the type of plan it originally discussed—the old-fashioned DB accumulation plan.

*The annual benefit earned under a cash balance plan can be expressed as an annuity payable at normal retirement, in a manner similar to the annual benefit earned under a traditional annuity accumulation plan (i.e., x percent of that year's pay). If FASB continues to believe that traditional annuity accumulation plans are pay-related, as expressed in Q&A 50, then it becomes difficult to argue that a cash balance plan is not pay-related.*

5. If CB plans are not pay-related (or whatever term replaces that one), then TUC would apply.

*Agreed*

6. If CB plans pay-related, then a variation of PUC must be selected.

*Agreed*

7. Assuming CB plans are pay-related, do you see them as plans that provide cash accounts or plans that provide annuity benefits?

*Cash balance plans are defined benefit plans that generally offer several choices of benefit distributions, including annuities and lump sum payments. Under a cash balance plan, the lump sum value of the benefit (or an estimate thereof) is generally communicated to participants on a regular basis. The Internal Revenue Service, in Notice 96-8, has set forth methodology for determining the present value (or lump sum value) of a participant's accrued benefit in a cash balance plan. Following that guidance, several courts have ruled that payment of the account balance may not be sufficient to meet current statutory requirements that a lump sum payment option be at least equal to the actuarial present value of accrued benefits based on specified interest and mortality assumptions. One court has recently disagreed with the prior rulings.*

8. What are accrued benefits – an account balance or a deferred annuity?

*Cash balance plans are required as defined benefit plans to provide annuity benefits. Therefore, a plan must define how such an annuity is to be determined. There is no similar requirement to provide payment of the account balance or the present value of the accrued benefit (unless the sponsor chooses to offer a lump sum payment option).*

9. Are benefits back-loaded or front-loaded?

*Benefits expressed as annuities are generally significantly more front-loaded than in a traditional annuity accumulation plan.*

10. What attribution alternative best tracks how benefits accrue?

*Arguably, plans of the same type should be accounted for similarly. The projected unit credit (PUC)-Annuity Accrual alternative is the only one of the three PUC alternatives that reflects the pattern of annuity benefit accrual for a traditional annuity accumulation plan in a manner consistent with footnote 8 of paragraph 40 of FAS 87. If the rate of annuity accrual for the first 10 years of an employee's service is twice that for the next 10 years, the PUC-Annuity Accrual variation will attribute twice as much of the projected annuity benefit to the first 10 years as the last 10. Since annuity benefits under a cash balance plan can be expressed as a front-loaded annuity accumulation plan, the attribution of the projected benefit under SFAS 87 for a cash balance plan should be front-loaded as well.*

11. Is there more than one alternative that might be viewed as appropriate or reasonable?

*If it is determined that traditional annuity accumulation plans are not pay-related, it would be reasonable to use TUC for both traditional annuity accumulation plans and cash balance plans. As noted in the response to Question 3 above, it may also be reasonable and desirable to use TUC for all pension plans.*

## Response to the FASB on Cash Balance Plans

### 5

Please address the questions posed below. Based on your view you could be finished at an early point. However, please continue and address the remaining issues on the premise that the FASB does not agree with your earlier view and now must address the later questions.

1. Are cash balance plans defined benefit or defined contribution plans for accounting purposes?

*A cash balance plan is a defined benefit plan that defines the benefit in terms that are more characteristic of a defined contribution plan. In other words, a cash balance plan defines the promised benefit in terms of a stated account balance. Since cash balance plans are not based on the performance of individual accounts, defined contribution accounting is not appropriate. Defined contribution accounting works because the assets of the plan generally match the liabilities, and the investment performance is distributed to participants. The only cost that needs to be recognized is the employer contribution.*

2. If defined contribution plans, then FAS 87 defined contribution accounting should be followed.

*True, but they are not defined contribution plans.*

3. If defined benefit plans, then an attribution method must be selected.

*Of the choices available unit credit appears to be the most appropriate. The other methods project both pay and service and result in an averaging of accrual rates. This is not faithful to the contract, the terms of the plan, and results in an arbitrary assignment of costs from one period to another without any basis in the Statement. If memory serves me correctly, the basis of the exchange, the contract or plan, should govern the accounting. Unit credit was selected as the attribution method that best does this. For final- and career- average pay plans, unit credit with a salary scale was selected as the attribution method since the benefit attributed to a given year of service is dependent on future pays. In cash balance plans, future pay increases have no impact on the current year's accrual. Also, future pay credits do not impact the current year's accrual.*

4. If CB plans are defined benefit plans, are they pay-related or not? In answering this question you do not need to be constrained by Q&A 50. You may want to propose a different term to replace pay-related in this discussion, but if you do so you should start with an explanation of why that term is no longer appropriate. Depending upon the outcome, FASB may have to change this Q&A. If you think that is the case, you should also deal with the issue of how changing Q&A 50 will

affect the type of plan it originally discussed—the old-fashioned DB accumulation plan.

*As indicated above, cash balance plans are not pay-related in the sense that final-average pay plans or the few career- average pay plans are. I believe the key distinguishing factor is that the benefit earned in the current year will not change if future pay changes. In final- average pay plans the benefit earned in a given year of service depends on the length of future service. It won't change for those who leave employment at the end of the current year, but it will for everyone who continues and receives a pay increase. Question 50 was a good question, but the answer was disappointing. First, there are hardly any real career average pay plans out in the universe of pension plans. There are a lot of accumulation plans, and one can see a cash balance plan as a type of an accumulation plan. In it, accounts are accumulated instead of annuities. In the response to Question 50 it says, "A pension plan that describes the pension benefits earned as 1 percent of current pay for each year of service is the same as a pension plan that describes the pension benefits as 1 percent of total career pay." This is correct but is not particularly interesting. Plans that pay a benefit of 1 percent of each year's pay accumulate benefits and at any point in time the benefit for service rendered is known on a retrospective basis. Career- average pay plans (which are as frequent as cash balance plans were in the 1970s) pay a benefit based on a formula of average pay, percentage, and service. The benefit properly attributed the first year of service under a career- average plan will only be known when the individual quits. This is no different from a final- average pay plan. A forecast of an exit date and future salary increases is necessary to estimate the career- average pay plan's accrual for the current year of service. The amount of future salary increases will not affect the current year's accrual under an accumulation plan. I believe the conclusion of answer 50 is fine and that it appears consistent with the Statement to require the use of salary projections for final- and career- average pay plans. The conclusion that both a simple accumulation plan and a career- average pay plan can provide equal benefits does not alter the substance that the plans are different. In an accumulation plan the first year's accrual is a function of that year's pay. In a career- average plan, the accrual attributed to the first year of service will generally be based on a higher number, unless there is 100 percent turnover at the end of the first year. If one wants to let the contract govern the accounting, then it does not seem reasonable to recast the contract into terms that do not apply. One could conclude that some flat benefit plans are pay-related by studying their terms and past history. No one has suggested that if, coincidentally, a plan that is changed every three to five years always provides a benefit multiplier of 1.1 percent of the mid point of each pay grade, it is pay-related and should be accounted for in that fashion. The benefit is described as dollars per month per year of service, where the benefit varies by pay grade or job classification. The accounting is unit credit.*

5. If CB plans are not pay-related (or whatever term replaces that one), then the TUC would apply.

*Correct.*

6. If CB plans pay-related, then a variation of the PUC must be selected.

*They are not pay-related. It does not appear that there is any support for PUC variations in the Statement, except for the case of extremely back-loaded plans.*

7. Assuming CB plans are pay-related, do you see them as plans that provide cash accounts or plans that provide annuity benefits?

*To use the words of Bishop Berkeley, the annuity benefits are “ghosts of departed quantities.”*

8. What are accrued benefits – an account balance or a deferred annuity?

*From an accounting perspective the accounts are the benefits. The opening statement above is lifted from the Department of Labor website. This is what they are telling participants.*

9. Are benefits back-loaded or front-loaded?

*The benefits are generally not back-loaded. One could make up examples where the benefits would be back-loaded, such as low pay credits and large delayed interest credits.*

10. What attribution alternative best tracks how benefits accrue?

*Unit credit.*

11. Is there more than one alternative that might be viewed as appropriate or reasonable?

*Of the three other methods discussed in the paper, all have severe faults. They all average past, present, and future accruals in some way and this ignores how benefits actually accrue. The only reason these methods are found in practice is the answer to Question 50, because there is no way to implement that answer without projecting service. Because future salaries do not change the current year's accrual, adding projected salaries to the calculation does not change the results, unless future service accruals are included and then averaged. The straight-line method is reserved for extremely back-loaded situations, and since this is not the case for cash balance plans, it makes no sense to apply this method in a situation that is not back-loaded. The pay credit method is unattractive since without side conditions it may result in a projected benefit obligation (PBO) less than what most people would think the accumulated benefit obligation (ABO) was. The annuity credit method relies on the use of the ghosts of departed*



*quantities to attribute benefits and is both uncommon and based on recasting the plan into something it is not.*

## Response to the FASB Staff on Cash Balance Plans

### 6

Please address the questions posed below. Based on your view you could be finished at an early point. However, please continue and address the remaining issues on the premise that the FASB does not agree with your earlier view and now must address the later questions.

1. Are cash balance plans defined benefit or defined contribution plans for accounting purposes?

*The basic cash balance benefit promise more closely resembles a defined contribution plan than any traditional defined benefit arrangement. This is particularly the case from the employee's perspective. Like a defined contribution plan, the cash balance promise is expressed in terms of an account, benefit credits, and investment credits. However, from the employer's perspective, a cash balance benefit that satisfies the ERISA and Internal Revenue Code requirements clearly has attributes more like a traditional defined benefit plan. Annuity options are provided, past service benefits can be provided, subsidies can be introduced, and there may be traditional defined benefits in addition to the cash balance benefits, both in the transition from a prior plan and as ongoing features. Further, tax-qualified cash balance plans are funded in the same way as traditional defined benefit plans. Annual contributions typically will not equal the cash balance benefit credits, trust earnings generally will not equal the cash balance interest credits, and trust assets will not equal the sum of account balances.*

*Given these "hybrid" attributes, there are good arguments for either a defined contribution or defined benefit accounting approach. However, given the close resemblance to a money purchase type defined contribution plan from the employee's perspective, it seems that even if defined benefit accounting is applied, it would be desirable for such accounting not to produce results that differ significantly from those under the defined contribution accounting rules.*

2. If defined contribution plans, then FAS 87 defined contribution accounting should be followed.

*See response to Number 1 above.*

3. If defined benefit plans, then an attribution method must be selected.

*If cash balance plans are to be accounted for as defined benefit plans, the attribution method most similar to defined contribution plan accounting is traditional unit credit (TUC). As discussed below, any of the so-called projected unit credit (PUC) methods have a degree of arbitrariness and thus would not seem to meet the "representationally faithful" accounting tenet.*

4. If CB plans are defined benefit plans, are they pay-related or not? In answering this question you do not need to be constrained by Q&A 50. You may want to propose a different term to replace pay-related in this discussion, but if you do so you should start with an explanation of why that term is no longer appropriate. Depending upon the outcome, FASB may have to change this Q&A. If you think that is the case, you should also deal with the issue of how changing Q&A 50 will affect the type of plan it originally discussed—the old-fashioned DB accumulation plan.

*Q&A 50 of the Implementation Guide focuses on a simple 1 percent accumulation plan and concludes that because the benefits under such plan can be restated as 1 percent of career average pay multiplied by years of service, the accounting for accumulation plans should be the same as for a final- pay plan with an averaging period equal to the employee's total period of service. Those actuaries who do not use traditional unit credit for cash balance plans usually point to this answer as justification for their views. They assert that a cash balance plan is essentially a front-loaded accumulation plan and attempt to apply Q&A 50 using some type of projected unit credit attribution method.*

*Before focusing on how one might apply Q&A 50 to a cash balance plan, it is useful to examine a potential problem with the traditional unit credit attribution method. Under the traditional unit credit attribution method, there is no difference between the projected benefit obligation (PBO) and the accumulated benefit obligation (ABO) – they are, by definition, equal. Because traditional final- pay plans provide most of the benefit value in the later years of service, actuaries often have used approaches for funding that level out such “back-loaded” benefits. (In fact, under the ERISA funding rules, the traditional unit credit method is not acceptable for final- pay plans.) One such approach is a level cost method and another is the projected unit credit method. Under the latter approach, the PBO tends to exceed the ABO by the effect of expected future pay increases. This magnitude of this differential is greater where the pay averaging period is short or where the pay increase assumption is high.*

*Q&A 50 did not address more complex situations where an accumulation plan is less back-loaded than a straight 1 percent accumulation plan, or is even economically front-loaded – i.e., where proportionately more of the projected retirement benefits are accrued (and are reflected in the ABO) in the earlier years of service. Q&A 50 also did not address career- average pay plans that determine the average pay by weighting the pays rather than taking the simple average. The benefit accruals under a cash balance plan are most closely approximated by an “indexed” career-average pay formula (i.e., where pays are indexed from the date earned until retirement and then averaged). A cash balance plan can also be approximated, albeit less accurately, by a front-loaded accumulation plan.*

\*\*\*\*\*

***The indexed career- average pay analogy.*** Assume that a cash balance plan provides benefit credits equal to 5 percent of pay, interest credits are based on 30-year Treasury rates, and accounts are converted to an immediate annuity also using 30-year Treasury rates. Also assume that the actuary's assumption for 30-year Treasury rates is 6 percent and that the annuity conversion rate at age 65 results in a factor of 9. This plan can be approximated by the following formula: 5/9 percent of indexed career average pay multiplied by years of service. For an employee entering the plan at age 35, the average pay at age 65 would be estimated by increasing the pay in the first year of service by 6 percent compounded for 29 years, plus the pay in the second year increased by 6 percent compounded for 28 years, and so on for as long as the employee remains in service. The sum would be divided by the number of years included to get "indexed career- average pay." That average would be multiplied by 5/9 percent and then multiplied by years of service. The original 5 percent cash balance plan would provide the same benefits at all ages (assuming that the annuity conversion factors remain unchanged).

[Note: Some early cash balance plans were, in fact, stated in this way. Also, while the concept of using an average of indexed pays might seem unusual, that is exactly how benefits are determined under the largest pension plan in the U.S. – Social Security.]

If one were to attempt to adjust the ABO in this indexed career- average pay plan for the effect of future salary increases, special care would have to be taken to properly determine the indexed career- average pay projected to age 65 (the numerator) as compared to the indexed career- average pay based only on service already rendered (the denominator). This ratio would tend to be less than one in many cases (i.e., where the salary increase assumption is lower than the plan's interest credit rate or the assumption for such rate where interest credits are based on a variable index). Thus, in most instances, the resulting PBO benefit would be less than the ABO benefit, and the accounting would default to the traditional unit credit method anyway.

The annuity accrual method would default to the same answer in this instance since the benefit percentage is the same 5/9 percent in all years.

***The front-loaded accumulation plan analogy.*** The same 5 percent cash balance plan just discussed can also be approximated by an accumulation plan that provides a benefit credit rate that reduces at each age by a factor equal to the interest credit rate. Assuming that such rate is 6 percent (as above), and the annuity conversion factor at age 65 is 9 (as above), the benefit credit rate would be 2.25 percent of pay at age 40, increasing (decreasing) by 6 percent per year under (over) age 40. Thus, the benefit rate would be 7.21 percent at age 20 and 0.70 percent at age 60. [This analogy does not work as well as the indexed

*career- average pay analogy when interest credits are based on a variable index and also after the plan's normal retirement age.]*

*Rather than analyzing the attribution of benefits for this particular design, consider a simpler front-loaded accumulation plan. Assume that an accumulation plan provides that in the first 15 years of service the employee earns an annuity at age 65 equal to 2 percent of pay each year and in the following 15 years the employee earns at age 65 an annuity of 1 percent of pay each year. Consider an employee who enters the plan at age 35, whose average pay in the first 15 years of service is projected to be \$50,000 and whose average pay in the next 15 years of service is projected to be \$75,000.*

*The projected benefit under this accumulation plan at age 65 is \$26,250. The accrued benefit after 15 years of service is \$15,000, or 57 percent of the projected benefit. One might conclude from Q&A 50 that the PBO benefit (for retirement at age 65) after 15 years of service should simply be the ABO benefit of \$15,000 multiplied by the ratio of career average pay at age 65 of \$62,500 divided by current average pay of \$50,000. The result would be a PBO equal to \$18,750. Alternatively, under the so-called annuity accrual method, the result would be  $\frac{2}{3}$ (2 percent times 15 years, divided by 2 percent times 15 years plus 1 percent times 15 years) of the projected age 65 benefit, or \$17,500.*

*Before passing judgment on those results, consider a true career- average pay plan that provides that career- average pay will be multiplied by the sum of the same benefit percentages as in our accumulation plan. The resulting true career- average pay benefit at age 65 would be 45 percent of \$62,500, or \$28,125 (as compared to \$26,250 under the accumulation plan). Yet the accrued benefit (i.e., the ABO benefit) after 15 years of service is the same under either formula \$15,000. Clearly, the accumulation plan already accrues (i.e., in the ABO benefit) proportionately more of the projected age 65 benefit in the early years of service, which is reflected in its ABO being 57 percent of the projected benefit ( $\$15,000 / \$26,250$ ) as compared to 53 percent under the career average plan ( $\$15,000 / \$28,125$ ).*

*Under SFAS 87, for this true career- pay plan it makes sense that the PBO benefit would be \$18,750, which is the \$15,000 ABO benefit multiplied by projected career average pay (\$62,500) divided by current average pay (\$50,000). The annuity accrual method produces the same \$18,750 PBO benefit for this plan, determined by taking  $\frac{2}{3}$  of the projected \$28,125 age 65 benefit.*

*Consider again the accumulation plan and focus on the ABO and PBO benefits after 15 years of service (i.e., at the half-way point in the participant's projected service period). Clearly the ABO benefit is \$15,000, which is 57 percent (i.e., more than half) of the projected age 65 benefit. The potential PBO benefits are: \$18,750 by inflating the ABO benefit by the expected increase in career average pay, \$17,500 under the annuity accrual method, \$13,125 under the service*

*prorate method and \$15,000 under the traditional unit credit method. The inflating ABO approach clearly overstates the PBO because it treats the accumulation plan as if it were the true career average plan. The annuity accrual method properly adjusts for the fact that the accumulation plan projected age 65 benefit is less than under the career average plan, but it improperly presumes that the resulting age 65 benefit under the accumulation plan accrues at the same rate as under the career average plan. The PBO benefit under the service prorate method is problematic since it produces an amount less than the ABO benefit. The traditional unit credit method properly reflects the simple fact that future pay increases will not affect the benefit already accrued.*

\*\*\*\*\*

*The concern that actuaries, and I believe accountants, had with using the TUC method for plans that economically back-load benefits does not apply in the case of a front-loaded accumulation plan. If, in the above example, the ABO benefit were less than 50 percent of the projected age 65 benefit, then it might make sense to impose a minimum PBO benefit equal to one-half of the projected benefit. Otherwise, I do not think it is justified to inflate an ABO, which already reflects the front-loading in the formula.*

*More fundamentally, the question one must ask is what would happen if the plan were to be amended to suspend future benefit credits. Clearly, in an accumulation plan, that would have no effect on benefits already earned. In a true career average plan, unless the plan is also amended to suspend recognition of future compensation, the accrued benefit would continue to grow as the employee receives pay increases.*

*Thus, I believe that Q&A 50 should be expanded and clarified to provide that for a true career- average pay plan the PBO benefit should exceed the ABO benefit by the ratio of expected career average pay at the projected retirement age, divided by current career average pay. For an accumulation plan, I recommend that the Q&A provide that the TUC method generally applies (i.e., the PBO benefit is set equal to the ABO benefit). To deal with accumulation plans that are only slightly back-loaded (e.g., the traditional 1 percent plan), a minimum PBO benefit could be set equal to the projected benefit at retirement multiplied by the ratio of current service to projected service.*

*[Note: The proposal would also produce sensible results for a popular variation of a cash balance plan – the so-called “pension equity plan.” A PEP also expresses benefits in terms of a current value, but based on a percent of recent average pay (e.g., 5 percent of five year average pay multiplied by years of service). Before the accounting for cash balance plans is settled, I believe it is important to consider the PEP variation as well.]*

5. If CB plans are not pay-related (or whatever term replaces that one), then TUC would apply.

*Correct.*

6. If CB plans pay-related, then a variation of PUC must be selected.

*As stated above, FAS 87 gives no authority for project and prorated methods, other than as a safeguard in the case of plans that tend to back-load benefits. Actuaries have used such methods because of a perceived requirement to take future salaries into account and an inability to do so without using a project and prorated method.*

7. Assuming CB plans are pay-related, do you see them as plans that provide cash accounts or plans that provide annuity benefits?

*Annuity benefits, including surviving spouse options, must be offered under ERISA-covered defined benefit plans, including cash balance plans. However, virtually all cash balance plans I am familiar with offer lump sums equal to account balances, and in most plans the vast majority of employees elect the lump sum payments.*

8. What are accrued benefits – an account balance or a deferred annuity?

*Cash balance plan documents have used various approaches for defining the “accrued benefit” or some other similar term. In some cases, it is defined as the account balance, in others as the account balance with the right to future interest credits and in others as an annuity beginning either immediately or at normal retirement age based on the current or future account balance. For some IRS purposes (but not all), the plan’s accrued benefit would have to be converted to an annuity benefit payable at normal retirement date (assuming the plan did not already do so).*

9. Are benefits back-loaded or front-loaded?

*The vast majority of cash balance plans provide that interest credits depend only on the passage of time, not on the employee remaining in service with the employer. The benefits payable from these plans, compared to either final pay plans or career average pay plans, are economically front-loaded. Even in the case where benefit credits are sharply increasing by age or service, benefits tend to be relatively more front-loaded than traditional plan benefits.*

10. What attribution alternative best tracks how benefits accrue?

*Traditional unit credit (assuming DB accounting). The projected methods all are highly artificial, except as a safeguard against back-loading a service prorate minimum PBO benefit might be applied.*

11. Is there more than one alternative that might be viewed as appropriate or reasonable?

*If one of the project and prorate variations were to be prescribed, then the straight line prorate method has the benefit of simplicity and fits in nicely with the anti-back-loading requirement already in the standard and, arguably, inherently required in the current Q&A 50. The annuity accrual method is an artificial construct that tends to generate PBOs in excess of account balances and in excess of the TUC ABOs (which already reflect the front-loading in the cash balance formula) and, therefore, should be rejected.*



## Response to the FASB on Cash Balance Plans

7

Please address the questions posed below. Based on your view you could be finished at an early point. However, please continue and address the remaining issues on the premise that the FASB does not agree with your earlier view and now must address the later questions.

1. Are cash balance plans defined benefit or defined contribution plans for accounting purposes?

*A cash balance plan is designed to look like a defined contribution plan to the participant: it promises a lump sum distribution based on contribution credits and an interest-crediting rate. However, the defined contribution “account” is actually a “defined” benefit and does not vary based on the actual investment experience of the underlying assets. And, a cash balance plan also resembles a defined benefit plan in that it may/must offer life annuity options, and may offer transitional, grandfathered or alternative benefit formulas of a purely defined benefit character. The most important consideration, however, is that, the employer is “at risk” for the investment return, which is a defined benefit construct rather than a defined contribution construct. Even in the case where assets exactly equaled the sum of all employee accounts, there is an employer risk because the earnings on the underlying assets are unlikely to match the interest-crediting rate. And, since a cash balance plan can be unfunded, partially funded, or overfunded, the employer absorbs the same risk as it would in a traditional defined benefit plan.*

*For these reasons, we believe that a cash balance plan is best thought of as a defined benefit plan.*

2. If defined contribution plans, then FAS 87 defined contribution accounting should be followed.

*N/A*

3. If defined benefit plans, then an attribution method must be selected.

*Cash balance plans do not neatly fit into the normal FAS 87 rules. While they are pay-related, they are also typically very much front-loaded (i.e., more benefits are earned in the earlier years of an employee’s career because future interest credits are considered part of the accrued benefit). Treating the plan like a career-average plan (using a project and prorate method of unit credit) ignores this frontloading. To best follow the rate of benefit accrual for at least a simple cash balance plan almost requires the use of traditional unit credit (TUC) - a concept new to the FAS 87 world for a pay-related plan.*

*Using TUC best reflects the underlying benefit accruals, but raises two potential issues.*

- *First, a cash balance plan could conceivably be designed with contribution rates that steeply increase with increasing age. In this case, while TUC may still produce an appropriate accrual, it does not reflect the potential back-loading of accruals, and this could be argued to understate the true cost of the plan. In these situations, paragraph 42 – which specifies accounting for benefit formulas that attribute a disproportionate share of the total benefits to later years of service – could be applied.*
  - *Second, since most cash balance plans are conversions of traditional pension plans, there are often transitional minimum benefits based on final pay formulas. The cost of these final pay aspects clearly does not warrant the use of TUC. This is discussed further under question 11.*
4. If CB plans are defined benefit plans, are they pay-related or not? In answering this question you do not need to be constrained by Q&A 50. You may want to propose a different term to replace pay-related in this discussion, but if you do so you should start with an explanation of why that term is no longer appropriate. Depending upon the outcome, FASB may have to change this Q&A. If you think that is the case, you should also deal with the issue of how changing Q&A 50 will affect the type of plan it originally discussed—the old-fashioned DB accumulation plan.

*As noted in 3, we agree that cash balance plans are pay-related. However, we think that it is inappropriate to shoehorn this hybrid benefit into the limited categories of plans that were considered in the mid 1980s when FAS 87 was developed and implemented.*

*Cash balance plans, if treated as some sort of accumulation plan under Q&A 50, will often have a PBO that is less than the ABO (unless artificially adjusted). Conversely, if cash balance plans are treated like a final pay plan (e.g., using PUC-annuity accrual method) this denies the true nature of the benefit formula and promise.*

*We think it is better to return to basic principles and examine the features of cash balance and the underlying economic exchange: cash balance plans are typically front-loaded (since many cash balance plans guarantee a future interest return). Therefore, when the annual contribution is granted, it can be argued that the promise of all future interest credits on that contribution is also part of the exchange. When FAS 87 was drafted and implemented, there was lots of discussion about how to handle front loaded plans and the answer was typically to try to follow the pattern of benefit accrual. We feel that the best way to do that in a cash balance environment is to use TUC.*

5. If CB plans are not pay-related (or whatever term replaces that one), then TUC would apply.

*True, but see above.*

6. If CB plans are pay-related, then a variation of PUC must be selected.

*We disagree. As discussed in our answer to question 4, we think this ignores basic principles and the underlying economic transaction.*

7. Assuming CB plans are pay-related, do you see them as plans that provide cash accounts or plans that provide annuity benefits?

*These plans usually, but not always, provide lump sums equal to the participant's accrued benefit. But so do many "traditional" pension plans. Thus, we do not think this distinction should factor into the determination of the proper accounting treatment.*

8. What are accrued benefits – an account balance or a deferred annuity?

*Cash balance plans are often designed so that the only benefit ever elected is the account balance. However, we do not think that this should factor into any argument over how to expense these plans.*

9. Are benefits back-loaded or front-loaded?

*Compared to final pay plans or career average pay plans, the benefits payable from cash balance plans are heavily front-loaded. In particular, the granting of an annual pay credit often includes a promise of future interest on that pay credit.*

10. What attribution alternative best tracks how benefits accrue?

*Traditional unit credit is probably most appropriate. Any other method will produce artificial results and the resulting PBO will NOT be a true representation of the plan's actual liabilities as of the measurement date.*

11. Is there more than one alternative that might be viewed as appropriate or reasonable?

*Yes. In the "real world" most cash balance plans are conversions from existing defined benefit plans, and the existing benefit formula is often provided as a minimum benefit for a limited "grandfathered" group of employees (and for an extended time period in some situations). This means that a plan that is primarily cash balance may have some final salary benefit overrides, making the use of any one method somewhat problematic. For example, consider a plan that provides a*

*cash balance formula but provides a minimum of the old final salary pension formula for people retiring in the next seven years. An ideal attribution method would:*

- *“degenerate” into whatever is right for cash balance at the end of the seven year period, and*
- *allocate the cost of the final salary minimum benefit to the seven years that it is in place.*

*Since the value of the final salary minimum is often a large unknown based on when the employee is expected to retire, etc. and is often, but not always, a non-level rate of accrual, it could be argued that the extra value provided by this minimum needs to be expensed in a different manner than the underlying cash balance formula – for example by using a PUC method with a proration.*

*Thus, no one method is going to provide appropriate results in all cases. The existence of minimums, grandfathered, conversions of past benefits to opening account balances, etc. all result in nuances that suggest some degree of flexibility in the application of actuarial methods is warranted.*