## Add-on Cash Balance Plans – Perhaps the Best Kept Secret in the Pension Industry

What To Do When You Need More Than a 401(k) Profit Sharing Plan

January-2005

by John S. Agatston FSA, EA, MAAA, MSPA

If you have ever been frustrated by the contribution limits that a 401(k)/Profit Sharing Plan present, but are nervous about the risks that a traditional Defined Benefit Plan pose, then perhaps the solution you have been seeking is a Cash Balance Plan add on to your present 401(k)/Profit Sharing Plan.

#### What is a Cash Balance Plan and why it can be such a useful tool.

Cash Balance Plans are a safer, more flexible, Defined Benefit Plan that looks more like a Money Purchase Plan but with the higher contribution limits Defined Benefit Plans offer, and with the added benefit of much lower investment risks. You might say it is a Money Purchase Plan that "got a life."

#### It's Like a Money Purchase Plan

Like a Money Purchase Plan, contributions are defined, as opposed to benefits. This differs from a traditional Defined Benefit Plan, which is just the opposite. For example, if a Money Purchase calls for a 5% of pay contribution, a partici-

pant making \$20,000 a year would get a contribution of \$1,000 a year (i.e. \$20,000 x 5%). Similarly, with the same participant in a Cash Balance Plan, utilizing the same Contribution Percent, the Contribution for the participant would be the same \$1,000. So you're asking, what's the point if there is no difference?

#### How it's different from a Money Purchase Plan

The difference from a Money Purchase Plan is that the contribution is in a sense "Hypothetical" in that, while the Money Purchase Plan Contribution is invested in a fund directly, the Cash Balance is a promise to pay. With a Cash Balance Plan the sponsor invests in a fund as a way to back up the promises made. This is the case with all Defined Benefit Plans. At any point in time, the invested assets may be more, or less, than the promises made. Also, with a Cash Balance Plan the "Hypothetical Balances" earn interest based on an established benchmark, usually 30 Year Treasury Rates equivalences. When the invested earnings in the fund is more than the established interest rate, the sponsor enjoys a gain and can fund less in the future. When the earnings in the fund comes up short of the promise established by the interest rate, the loss will need to be made up by the sponsor. Since the spon-



sor takes on the risks of the investment, and since the interest credit is usually related to US Treasury Rates, it is common for sponsors to invest more conservatively in a Cash Balance Plan (i.e. bonds of particular durations), and less conservatively (i.e. stock investments), in the 401(k) and profit sharing plan.

#### Higher Contribution Limits than a Money Purchase Plan

Money Purchase Plans limit investments to the lesser of 25% of Eligible Payroll or \$40,000 (indexed). The adjusted limits in 2005 can be as high as \$46,000 with a \$42,000 profit sharing limit and a \$4,000 401(k) catch-up. In a Defined Benefit Plan the maximum contribution by age is: over \$65,000 at age 40, over \$100,000 at age 45, and over \$150,000 after age 55. In addition, Defined Benefit Plans allow for some pre-funding-funding above the liabilities that have accrued. The prefunding amounts, if backed up by acceptable actuarial methods and assumptions, are fully deductible and help lower the cost for the sponsor in a slow year.

#### Less Cost Volatility Than a Traditional DB Plan

Unlike a "traditional Defined Benefit Plan," Cash Balance Plans do not have to be based on final average pay. Final average pay plans can have run-away costs when those close to retirement get a significant increase in pay just before they retire. Since this only affects one year's liabilities, and not all years, in a Cash Balance Plan, this is not the case. For example, an unexpected 10% increase of pay for an older long-service employee, may more than double the related contribution in a traditional Defined Benefit Plan, while only increase the contribution in a Cash Balance Plan situation by only 6 percent. For a Cash Balance Plan, which is designed to skew most of the contribution to the owner, combined with associated conservative investing, the risks that have long been associated with Defined Benefit Plans practically disappear.

#### Similar to New Comparability Rules— But Better

Like a Money Purchase (or Profit Sharing) Plan, new comparability rules can be used to skew the contributions, giving higher percents to favored groups such as owners and longer-service employees. The interest rates used to do discrimination testing in Defined Contribution Plans (i.e.. Money Purchase or Profit Sharing) are higher than what is used for a Cash Balance Plan. This allows for more discrimination in Defined Contribution Plans than the Cash Balance situation since a higher rate (8.5% vs. approximately 5%) can be used. However, when a Cash Balance Plan is used in combination with a Defined Contribution Plan, the skewing can be even higher than either plan by itself.

#### Yes—They are Government Friendly

We're sure you have read numerous articles detailing the evils of Cash Balance Plans that have proliferated the news in some circles, especially concerning the IBM case. But there is a very large and important difference between those cases and the type of Cash Balance Plans we are talking about here. The IBM case, and those like it, all concerned conversions from traditional Defined Benefit Plans into Cash Balance Plans. Here's the difference, add-on Cash Balance Plans, plans that start out as Cash Balance Plans, are not these conversions types and subsequently do not carry the baggage that coversion type Cash Balance Plans do. We regularly get IRS approval for our Cash Balance Plan documents since they are not the "conversion type".

#### If This is so Good—Why Don't I See More of Them

One reason there have not been more of these Cash Balance Plan add-on's relates to "structural" issues in the pension industry. Many firms that do Defined Contribution Plans tend to specialize and simply do not have the expertise to work with Defined Benefit Plans. Many of the consulting or administrative firms that do have the expertise, typically split that expertise between two different departments— Defined Contribution Plans vs. Defined Benefit Plans-and a house divided often doesn't communicate well. Still others, are using commercial pension software systems that are not either geared to do Cash Balance Plans, or, if they are able to do them, don't have the capabilities to perform the testing required, in conjunction with the Defined Contribution Plan. Finally, many actuaries are nervous about venturing into new territory. You know us math geeks—we don't exactly veer off the status quo—unless we have a sixteen digit number that says it's okay. So, even though Cash Balance Plans are simpler for the sponsor and the participant to understand, they are a little more complicated on the actuarial side of the equation.

#### The Big Payoff

Cash Balance Plans, when used as an add-on, can skew a very large portion of the contribution to the owner or favored group. They are much easier to understand than traditional Defined Benefit Plans. They are good at limiting costs when the owner or favored group is not the oldest group in the sponsor's employee population. Similarly, they can limit the cost for older short service employees. They can be used to equalize contributions between owners of different ages. When combined with a 401(k) Profit Sharing Plan there are a lot of ways to "mix and match" using each of the three types of plans to solve various design challenges. Finally, when the 25% deductible limit becomes an issue, you can utilize a "split" approach and put some participants in the Cash Balance Plan and others in the Profit Sharing Plan, avoiding the 25% deductible limit.



#### Let's Look at a Representative Case Scenario

After being in business a few years, a 42 year-old business owner of a small but growing business, starts a 401(k) Plan so that their eight employees can begin to save for retirement. The 401(k) testing, limits the owner to putting away only a few percent of their \$80,000 salary for themselves in order to pass the testing. Over the next several years business improves and they finally decide to add a Profit Sharing feature to the plan so they can put away more money. They begin to put about 3% of pay away for all their employees. But, by taking advantage of the "new comparability rules," the owner is now able to put away about 12% of their \$150,000 salary. The next year they take advantage of the safe harbor rules and, also, put away the maximum allowed 401(k) contribution. Investments go down with the rest of the market but have now recovered to about "break even." Business continues to be great. Now, at age 52, the owner is now making over \$500,000 in salary, and is giving their employees 10% in the Profit Sharing Plan and have contributed the maximum of \$44,000 (including \$3,000 catch-up since they are over age 50). They have personally about \$250,000 in the fund (401(k) plus profit sharing). They are looking to retire in the next 5 to 10 years and hope to turn the business over to two of their children who should be ready by then.

Still wishing to save more personally through their qualified retirement program they quickly discover there is a problem. The company now employees 25 employees with a total payroll of \$960,000 (not counting owner's salary) and there doesn't seem to be any way to contribute more for themselves without employee retirement costs

going through the roof. Advisor number one shows them two possible solutions with a Defined Benefit Pension Plan. With one, they could put away about \$170,000 with about \$110,000 going for themselves. One advisor mentions that there is a 25% deductible limit when they have a Profit Sharing Plan along with the Defined Benefit Plan. He also tells them that if they wanted to eliminate the Profit Sharing feature they could contribute \$280,000 with \$180,000 for themselves. Someone else suggested they look at a 412(i) Defined Benefit Plan. With the 412(i) they can contribute a total of \$330,000 with \$210,000 for themselves. Thinking this is all too expensive, plus who wants the risks associated with a Defined Benefit Plan when they are looking to retire soon, either to pass the business on to their children or sell it, they scrap the whole idea and settle for what they are presently doing. Far from the best of scenarios.

In comes the Cash Balance Plan add-on. With it, they could keep the employee contribution at 10% of pay, or even lower it if they decide. The 10% (or less) would be split between the Profit Sharing Plan and the new Cash Balance Plan. They can still put the \$44,000 in for themselves (actually \$46,000 for 2005). Additionally, they can put away \$170,000 for themselves in the Cash Balance Plan. It's completely legitimate as far as the IRS is concerned, and much safer than a traditional Defined Benefit Plan. They also find out that they can take care of the three longest service employees, who are going to retire in the next few years, by contributing more than the 10% for them, while keeping the contribution level for the other employees at 10% or less. They can

even vary the contribution for the other employees based on their age, service or other business criteria. Finally, they find out that they can significantly vary the contribution from year to year to accommodate for the ups and downs of business as well as the need to invest more in the business one year than in another.

PASSING THE
"THREE
PIE
TEST"

Having
designed
many hundreds of
plans over the last 25
years we find understanding design can
be broken down
to what we
refer to as
the "Three
Pie Test":

### The First Test—"How is the Pie Subdivided?"

In other words, given a certain total contribution amount, how is the contribution into a plan allocated among the different participants and how close does this allocation agree with the goals of the plan sponsor. For example; the owner sponsor wants a plan that maximizes the contribution for themselves within the limits allowed, while allocating a certain amount to two long service employees, as well as a certain amount to key employees, while keeping the contributions to the other employees at a certain level. The closer we can get the subdivision of the pie to the sponsor's goals, while passing testing, the better we have designed the pension plan. New comparability Profit Sharing Plans with a 401(k)

feature are usually the best vehicle to achieve the subdivision of the pie according to the owner's wishes, but has a serious drawback if the owner wants to put away more than \$46,000.

#### The Second Test — "How Big is the Pie"

We know the biggest the profit sharing/401(k) pie can get is \$46,000 (assuming the owner is age 50 or older). Defined Benefit Plans solve the problem and can have the owner's portion be in the \$150,000 to \$200,000 annual contribution level depending on the owner's age. However, in the attempt to gain a higher contribution, the subdivision of the pie is normally sacrificed. This means the owner may make a bigger deduction with their taxes, but will pay much more to the employees than they generally would want to or need to. Cash Balance Plans allow for a bigger piece of a bigger pie the best of both pies. Cash Balance Plans in combination with a Profit Sharing Plan allow for a more effective subdivision of the pie than just a Cash Balance Plan alone due to the mechanics of the testing, which allow for a legal "interest arbitrage". Floor Offset Plans, of which there are several variations, can also provide similar optimization, but the problem we have with Floor Offset Plans is that they are much more dependent on the stability of the investment markets. Only in a situation in which the Profit Sharing assets are trustee directed, and carefully and dynamically managed in respect to the offset formula, are we comfortable with Floor Offset Plans.

# The Third Test—"How Much Can the Size of the Pie Vary from One Year to the Next"

In other words, how flexible is our plan in regards to funding? One

might say that the first test has to do with the trade off between the owner (or favored group) vs. the other employees. The second test is a trade off between how much can be contributed to the plan vs. how much taxes are being paid. The third test has to do with how much is going to be put in the plan vs. allocated to other parts of the business. It also has to do with how much must a sponsor put away if business is down or they decide to invest in the company. In ever increasingly volatile economic climates and increasing competition, funding flexiblity is becomming more and more a crucial criteria for proper plan design.

Cash Balance
Plans allow for
a bigger piece
of a bigger
pie—the best
of both pies.

The combination Profit Sharing/ Cash Balance Plan offers a lot of year to year flexibility, particularly if there is timely communication between the plan sponsor, their advisors and the actuary.

#### Two Alternatives— Other Than An Add-on Cash Balance Plan

There are two other "add-on" solutions that we believe, depending on individual circumstances, will work well and are worth some discussion. First, a "Benefit Adequacy" Profit Sharing/401(k) Plan. This is a plan where the level of contributions is skewed based

on various age and service criteria to mimic the results of a Defined Benefit Plan in order to provide for adequate benefits for all employees at retirement. A formula might look like the this: a contribution of 2% plus .2% for every year of service over age 40 plus .2% for every year of service above 5. The exact formula is determined after a "Benefit Adequacy Test" is made. The formula can be reviewed and adjusted every few years to stay on target. The formula can take the form of a point system so that the total contribution is determined by the sponsor and then allocated according to the point system. By itself the "Benefit Adequacy" Profit Sharing/401(k) Plan does not allow for the bigger pie but can be used to better subdivide the pie.

Second, a new comparability Defined Benefit Plan as the addon plan. For example, a Profit Sharing Plan with a 5% formula and a Defined Benefit Plan with a 1% of Average Salary per year of service for all employees hired by 1995, .5% of Average Salary per year of service for all other employees but 4% for the owner.

Since each company comes with a different set of: goals, demographics, business cycles and qualified plan history, no one solution fits all cases. Also, the best solution one year may not be the best solution a few years down the road. Good consulting needs the capacity to look at multiple plans and multiple year solutions.

John S. Agatston has been an actuary for over 30 years and has owned his own firm, John S. Agatston Actuarial Services, for the past 22 years. If you you would like to consult with John you can reach him or his staff at 412-661-6292 or email John direct at johna@practicalactuary.com. Our website is www.practicalactuary.com