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Beyond Cash Balance: the DA Plan

by Thomas Zavist

Pension plans have seen many problems over the years—corporate raiders seizing pension assets, volatile funding requirements due to contribution holidays and deficit reduction contributions, volatile financial accounting, insolvent trusts, high premiums, lump sum subsidies and whipsaw. All these problems can be traced to a single source—the notional concept of an accrued benefit distinct from the current funding of a retirement benefit. When you disconnect the liabilities of a pension plan from its assets, you create a quandary—what to do with the excess or shortfall. Inevitably, the decision is to get rid of it as quickly as possible, which causes volatile annual cost.

A traditional defined benefit (DB) pension plan has both liability volatility, due to changing discount rates, and asset volatility. Switching to cash balance reduces volatility. A cash balance pension plan defines its liabilities by a formula. If you ignore whipsaw, the liability of a cash balance plan at plan termination is equal to the sum of the cash balance accounts of every participant—an amount which has no volatility. Under the April 2, 2004, proposed interpretation of FAS 87, the liability for a cash balance plan with variable interest credits is also equal to the sum of the cash balance accounts.[1] By design, therefore, a cash balance plan has asset volatility only and no liability volatility, although whipsaw may keep a cash balance plan from completely living up to its design. (Whipsaw is a legal requirement to provide larger lump sums when interest rates are low.).

Some experts, including Mark Beilke who spoke at the October 2003 meeting of the American Society of Pension Actuaries, have predicted an international movement to comprehensive income accounting this decade. (This means immediate recognition of asset and liability changes—no bases and no corridor.) Each year assets and liabilities will be marked to market, which will aggravate expense volatility for publicly traded companies with DB pension plans, unless liabilities are tied to assets.

The Need for Equity Investment

From 1926 through 1988, stocks outperformed bonds by 5 percent on average each year.[2] Some have suggested investing pension plan assets entirely in bonds as a solution to comprehensive income volatility.[3] Compounding the 5 percent difference, a better solution is to terminate a DB plan, since investing a dollar for 30 years in equities in a defined contribution (DC) profit sharing or §401(k) plan gives you four times as much money on average as investing a dollar in fixed income securities in a pension plan. It is difficult to argue with a factor of four. Like the workers they cover, pension plans have a competitive need to invest in the stock market. If DB plans were to abstain from stocks, they would make the DC plan a comparatively better retirement savings vehicle. Bonds may tie investments to liabilities, but they are no solution in the long run. Since retirement savings are consumed over a lifetime in retirement, timing risk is not as great a concern as longevity risk in the context of retirement planning. Earning a higher return alleviates the risk of longevity, which is the main risk in retirement.

The Need for New Plan Designs

As they face increasing volatility, publicly traded companies will move away from both traditional and cash balance pension plans and into DC plans, unless consultants advocate a DB pension plan design that ties the liabilities of the pension plan more closely to its equity investments. While no sponsor wants to be the first to try something new, consultants have managed to convince sponsors to switch to cash balance, so it is possible to convince plan sponsors to try something new. It is merely difficult—not impossible. What is easy is convincing them to switch to DC.

Equity-Linked Cash Balance Plans

There are a couple of ways to link assets and liabilities in a pension plan. One way is to have a cash balance plan with an interest crediting rate tied to the investment goals of the pension trust. To avoid back-loading, the cash balance plan must have a low normal retirement age, such as five years of service (which is the point at which participants vest and gain a right to an immediate annuity at termination). In *Cooper v. IBM Personal Pension Plan*, a federal court has ruled in essence that making the same contribution on behalf of two participants of different ages is fair in a DC plan but unfair age discrimination in a DB plan.[4] Besides solving any back-loading problem, defining a low normal retirement age in the plan document, after the fashion of NationsBank, eliminates whipsaw and age discrimination issues.[5]

A cash balance plan with interest credits linked to benchmark indices is not the only way to reduce volatility, and it may not be the best. For example, every cash balance plan has a career average formula, which benefits employees who quit at the expense of employees who work to retirement. Although they reduce volatility, cash balance plans do not reward long service as much as traditional plans do. To reduce volatility, employers who reward long service must look beyond traditional plans, beyond DC and beyond cash balance.

Defined Allocation Plans

Revenue Ruling 69-427 has steered pension plans in the United States in the wrong direction since 1969. The ruling applied to a particular pension plan with a normal retirement benefit defined by a formula, and it prohibited the plan from paying disability and early retirement benefits in an amount equal to the funded portion of the normal retirement benefit.[6]

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The plan sponsor wanted to pay benefits before retirement according to the amount funded, and the IRS objected. By disconnecting benefit accrual from funding, the IRS nurtured the notional concept of an accrued benefit—a concept which became codified in the Employee Retirement Income Security Act (ERISA) of 1974 as a participant's right to a specific dollar amount. The cash balance plan stretches the concept of accrued benefit by tying it to an investment index. The logical next step is to tie the accrued benefit directly to the particular assets of a pension trust. To do so under current law requires making use of provisions designed for a money purchase plan but technically available to any pension plan.

Putting strict statutory interpretation aside for a moment and focusing on public policy, imagine what would have happened if the IRS had ruled the other way in 1969. The IRS would have legitimated a pension plan with the following characteristics:

- **Financial Security.** Employees who work until normal retirement receive an annuity for life according to their years of service for their employer and their average pay—giving them a secure source of income for the rest of their life.
- **Cost Stability.** Annual contributions to the pension plan are reasonably level year to year. Investment gains and losses are spread over future working life until normal retirement.
- **Exclusive Benefit.** All assets of the trust go to plan participants. No assets revert to the employer.
- **Fund Solvency.** The pension plan is always fully funded. The employer can choose to terminate it at any time and distribute the assets of the trust to participants with no further obligation to contribute.
- **Investment Prudence.** The employer makes the investment decisions and can help employees realize the long-term advantage of equity investment.

Call the pension plan design a *defined allocation plan*, i.e., a DB plan that defines each participant's benefit by a formula allocating the assets of the pension trust among the participants. Pensioners have assets based on the fixed pensions they are receiving, and remaining assets are allocated among employees and participants with deferred benefits. Instead of legitimating the plan design, the IRS prohibited it—in one particular instance. The IRS did not disqualify every imaginable defined allocation plan, however.

Returning to strict statutory interpretation, the main hurdle to overcome in a defined allocation (DA) plan design is to have definitely determinable benefits. In order to have definitely determinable benefits, a pension plan in which liabilities depend directly on assets must not have discretionary contributions. In Revenue Ruling 69-427 and later rulings, the IRS has considered contributions that are actuarially determined (rather than being fixed) as being discretionary.[7] Therefore, to avoid disqualification, a pension plan in which liabilities equal assets must have all actuarial assumptions and methods defined in the plan document. The document must specify a single annual contribution that falls within an actuarially determined contribution range. To my knowledge this has never been tried.

Another hurdle a DA plan must overcome is to be sure never to use forfeiture to increase benefits. This is a significant issue for a defined allocation plan, because it cannot rely on separate accounts or benefits determined separately for each participant to protect it against using one participant's forfeiture to increase another's benefit. Pensioners are allocated assets according to the benefits they are receiving. Remaining assets are allocated among remaining participants, and the DA plan document defines the accrued benefit in relation to the assets allocated. The allocation is conceptually similar to the individual aggregate funding method, but it is not restricted to the individual aggregate method. The accrued benefit is tied to a variable—the asset allocation—much as a cash balance accrued benefit can be tied to a variable interest credit. A defined allocation plan has other compliance hurdles that require skillful design to overcome.

A defined allocation plan is similar to a target benefit plan, but it is not a target benefit plan, because it is a DB plan rather than a DC plan. Thus, for example, you can convert a traditional DB plan into a defined allocation plan, just as you can convert a DB plan into a cash balance plan. You can also have subsidized ancillary benefits, window benefits, etc.

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Conclusion

Although the defined allocation concept may be too novel for many plan sponsors, it may be suited to some. In particular it combines low volatility with flexibility to assign benefits and investment risk innovatively to meet the objectives of employers, employees and the general public. An equity-linked cash balance plan with a low normal retirement age is only slightly less imaginative.

Pension plans have a need to invest in equities. Forthcoming accounting changes will aggravate volatility problems that publicly traded companies already face. The mainstream solution will be to terminate DB plans and replace them with enhanced DC plan contributions. Pension actuaries must be ready to advocate radical penison plan designs or else focus their attention on non-profit and governmental entities and privately held corporations. ◆

[1] *Financial Accounting Standards Board. 2004. "Interpretation of FASB Statement No. 87." Project Updates.* http://www.fasb.org/project/interpretation_st87.shtml.

[2] *Maginn, John L. Donald L. Tuttle. 1990. Managing Investment Portfolios: a Dynamic Process. 2nd Ed. Table 2-2.*

[3] *Ralfe, John. Cliff Speed. Jon Palin. 2004. "Pensions and Capital Structure: Why Hold Equities in the Pension Fund?"* http://www.soa.org/library/monographs/Retirement_Systems/m-rs04-1/m-rs04-1_03.pdf.

[4] *United States District Court for the Southern District of Illinois. 2003. Kathi Cooper, Beth Harrington, and Matthew Hillesheim, Individually and on Behalf of All Those Similarly Situated, Plaintiffs, vs. the IBM Personal Pension Plan and IBM Corporation, Defendants.* http://www.ilsd.uscourts.gov/Opinions/Cooper_v._IBM_Order.pdf.

[5] *Tax Analysts. 1999. "News Analysis—Pension Downsizing, Continued." Tax Policy Readings.* http://www.taxanalysts.com.

[6] *Internal Revenue Service. 1969. Revenue Ruling 69-427.* http://www.irs.gov.

[7] *Internal Revenue Service. 1969. Revenue Ruling 69-427. 1972. Revenue Ruling 72-97. 1978. Revenue Ruling 78-403.* http://www.irs.gov.