

In Defense of the Defined Benefit Plan

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This article was first published in December 1997 in Government Finance Review, a publication of the Government Finance Officers Association.

The mainstay of public employee retirement income packages has, for decades, been the defined benefit (DB) plan. The DB name is derived from the fact that benefits are defined by the plan, usually expressed as a percentage of salary for some designated period just before retirement, multiplied by years of service credit.

Periodically, interest in an alternative plan design emerges. The alternative is referred to as a defined contribution (DC) plan which derives its name from the fact that contributions are defined by the plan, usually expressed as a periodic dollar amount or percentage of compensation. At termination (which may be at or before retirement), the balance in a former employee's DC account is available for use as the individual wishes (i.e., transfer to another plan or IRA, purchase of an immediate or deferred annuity, or a lump sum settlement for immediate or deferred consumption).

Employee interest in the DC alternative is usually greatest during a protracted bull market (like the one being experienced of late). Employees are generally aware that the double digit returns available in many of the years since 1984 could have produced huge sums in individual DC accounts. On the other hand, employer interest in the DC alternative is usually greatest when there is a belief that pension plan contributions will be reduced through the adoption of such a plan. While these tend to be the primary motivations for considering an alternative to a DB plan, there are a number of other factors worthy of consideration. The purpose of this article is to identify features of these plans which may be overlooked when comparisons are being made.

Basic Financing Equation

Reduced to its simplest form, the financial mechanism behind the operation of both types of plans may be described by the formula:

$$\mathbf{C + I = B + E}$$

Where:

C = Contributions (employer, employee, or both)

I = Income from investments

B = Benefits paid

E = Expenses for plan administration

An understanding of this formula can be very useful to those wishing to become conversant with the fundamental financial differences between the two types of plans.

Defined Benefit Plans (Financial Activity)

In a DB plan, benefits (B) can be thought of as a moving target. As salary increases and service is extended, "B" becomes larger. Based on complex actuarial calculations, a

contribution amount (C) is determined which will allow for the accumulation of the assets needed to pay for "B". "C" will be a variable, based on plan experience. Consider what happens if "B" is predicted accurately but income (I) is less than expected. The only alternative for bringing the formula back into balance is to increase "C". If "I" is greater than expected, "C" will be reduced. In most cases, the variable "C" is the responsibility of the employer. The employer takes the risk if "I" is less than expected, and thus must increase contributions, and conversely is rewarded with lower contributions if "I" is greater than expected. (This is consistent with the fundamental rule of investing which says that the party taking the risk is the one which receives any rewards.)

Defined Contribution Plans (Financial Activity)

In a defined contribution plan, "C" is a constant (dollar amount or percent of pay) and "B" becomes the dependent variable. The amount available for "B" will, in large part, be dependent on the amount of "I". In a DC plan, relative to a DB plan, the risk associated with "I" is transferred to the employee from the employer. As with the earlier risk/reward example, the employee bears the risk of low return and is rewarded if income exceeds expectations.

Knowledge of recent exceptional market activity has made the DC alternative appear very attractive to many employees. For example, it is true that an individual account in a DC plan invested in an S&P 500 index fund from the beginning of 1984 through the end of 1996, with dividends reinvested, would have had an annual return of 16.8% (before expenses). Statistics like this lead to a great deal of "could have/would have/should have" discussion such as, "If I could have invested in such-and-such and would have done so, I should have made big bucks, therefore I would like to be in a DC plan." However, when faced with making their own investment decisions, individual employees tend to be risk averse. As a consequence, many do not actually benefit from what was available to investors with a long term time horizon who are willing to assume additional risk.

The Impact of Expenses (E)

In a conventional DB plan, the amount of "E" will usually be a small fraction of a percent of the assets under management. The amount of "E" will increase the amount of the employer's "C", but will not have an impact on "B".

In a DC plan, with investment vehicles being individually selected by employees, it is not unusual for "E" to be in the range of 1% to 2% of assets under management. The amount of "E" will not affect the employer's "C", but will have an impact on "B". (The greater the expenses, the less there is available for benefits.)

Risks Worth Remembering

When it comes to the risk associated with investing all of us tend to have short memories. Given the extended bull market underway, it is difficult to remember the 70's when inflation was high and investment return, on an inflation adjusted basis, was negative. During that period, DB participants were rewarded as salaries were adjusted for inflation while DC participants watched the value of their retirement savings decline. (As an

example, during the two year period ended December 31, 1980, the cumulative inflation rate was 27.3%, the cumulative total return on the Dow Jones Industrial Average was 19.8% (7.5% below the inflation rate), and, at the end of the period, the Dow stood at \$963.98.) Another factor which is rarely considered in the DB/DC debate is the importance of the timing of retirement. A governmental plan sponsor of a DB plan can, as a long term investor, tolerate market declines. Consider here the DC plan participant who retired October 31, 1987, when, for the month, the Dow Jones Industrial Average had declined 23.2%.

Another risk area which is frequently ignored is mortality risk. In a DB plan, the employer bears the mortality risk, meaning that if retirees live longer than expected, benefits continue to be paid. In a DC plan it is common for a retiree to purchase an annuity that will be payable for a specific number of years, in which case the benefit simply stops if the retiree lives beyond the specified period.

Additional risk areas worth considering relate to (i) inflation and (ii) so-called ancillary benefits. First, it is common for public sector DB plans to include some form of COLA to mitigate the negative impact inflation has on the purchasing power of benefits. (In some cases COLAs are predicated in part on investment performance and can result in employers and retirees sharing in favorable experience.) While it is theoretically possible to use a DC plan account balance to provide a COLA through the purchase of an increasing annuity, the usual practice is to purchase an annuity which is level for life, which in turn produces the largest up-front benefit – meaning no COLAs. Secondly, it is common for DB plans to include ancillary benefit provisions for dealing with pre-retirement death and disability. In order to address these latter risk areas when a DC plan is in place, it is usually necessary enter into an insured arrangement outside the DC plan.

DB vs. DC (Personnel Policy Aspects)

From a personnel management perspective, the traditional role of the DB retirement plan has been to attract and retain employees and then allow them to move into retirement with financial dignity. The question which must be addressed by policy makers is whether or not use of a retirement plan to retain employees is proper. One term used to describe such retention is “golden handcuffs” meaning that the plan makes it so financially disadvantageous for employees to terminate that they will stay in service until reaching retirement age. (Without incentives for employees to remain in service, the employer may simply become a training ground and thus have to endure the high cost of turnover and low productivity.) The negative frequently associated with golden handcuffs is that such arrangements may result in employees remaining in active service just to receive a higher retirement benefit, long after they have become less than fully productive.

The DC Plan Portability Myth

A current myth being perpetuated by DC advocates is that DC plans are the solution to pension portability problems. While such plans clearly have the potential to facilitate portability, federal tax structure does not do enough to encourage mobile employees to save for their retirement. Consequently, of the premature distributions from DC plans, a large percentage is consumed immediately rather than being saved for retirement. If federal officials truly wanted mobile employees to save their DC accounts for retirement,

a tax mechanism could be put in place which would make anything other than saving the account a non-viable alternative. It would, however, also mean that governments would receive substantially less income on a current basis and thus reduces the likelihood that such a proposal would receive serious consideration.

The Switch from DB to DC

A primary reason presently being suggested by employers for the switch from a DB plan to a DC plan is cost reduction. The fact of the matter is that long term costs can only be reduced if aggregate benefit payments are reduced. (The truth of this statement can be seen by again examining the fundamentals contained in the $C+I = B+E$ formula.)

If the objective of the DB to DC switch is to facilitate portability without materially impacting cost, there is an interesting side effect that should be noted. At this point you need only focus on the “B” component of the formula, which can be further examined as follows:

$$B = \text{Short Service Employee Benefits} + \text{Long Service Employee Benefits}$$

It is easy to demonstrate that short service employees who terminate early in their careers will receive more value from a DC plan than from an equal cost DB plan. Given this truth, there is only one way in which a new DC plan can be of equivalent cost to an old DB plan. Specifically, the new DC structure must produce less value for long service employees than did the old DB plan. Thus, a DB to DC switch could easily be translated by employees as a message that the employer wishes to increase rewards for short service and reduce rewards for long service. It seems reasonable to believe that such a message will have some impact on employee behavior and may very well lead to increases in turnover rates.

Appeal to Cash Fever

If the decision is made to make a DB to DC switch, a decision must also be made regarding what, if anything, should be made available to present employees – particularly long service employees. In some of the recent cases around the country, employees have been allowed to convert all (or some portion) of the value of their accumulated DB plan benefit values to individual DC plan accounts in exchange for forfeiting their benefit rights under the DB plan. Promises and ultimate delivery of large sums of cash have, in some cases, been used to enlist the support of long service employees for a DB to DC switch. The appeal of large cash amounts may work in this regard, even if the DC value is less than the DB value, particularly where long term employees nearing retirement do not have a stake in what the employer does for employees prospectively.

A DB Modification to Facilitate Portability

While not the sole reason, the primary factor resulting in a DB plan’s failure to facilitate portability is inflation. For example, in most DB plans the benefit for an employee who terminates before reaching retirement age is frozen, based on the salary earned near the time of termination. If there is a significant period between the time of termination and the benefit effective date, the purchasing power of the accrued benefit can be substantially

eroded by even modest inflation. To address this problem, a number of state plans have provided a means for indexing deferred benefits for all or some portion of inflation between the termination date and the benefit effective date. Referring back to the financing formula, such a provision will increase benefits (B) and thus increase contributions (C). One related policy question in considering such a provision is how much is an employer willing to pay to make it easier for employees to leave service before reaching retirement age? The fundamental policy issue which must be addressed is whether or not the plan should be used as a vehicle to retain employees or simply to provide reasonable levels of deferred compensation, regardless of when in an employee's career service is rendered.

Picking DB Plan Sponsor as Last Employer

Earlier it was mentioned that short service younger employees are financially advantaged by a DC plan. It is equally true that short service older employees may be financially advantaged by a DB plan, particularly if it is the plan in place at the last place of employment prior to retirement. Employees anticipating mobility during their career who are thoughtfully planning for their financial futures should pick employers with DC plans early in their careers and employers with DB plans late in their careers. The DC plan is frequently promoted as a vehicle for attracting young employees. It is equally reasonable to expect that a DB plan will work well as a vehicle for attracting older, experienced, talented employees away from employers with DC plans. Thus, a question worth considering is, which employer will pay for training and which employer will be rewarded for the employees' training and experience?

Conclusion

If consideration is being given to a DB to DC switch, it is probably wise to enlist the services of an external expert who does not have a stake in the outcome. With all too much frequency, external DC "experts" just happen to also sell DC plan administration and investment management services.

You have probably heard the expression that you should be careful what you wish for because you might get it. From a personnel management total compensation standpoint, an equally relevant expression in the benefits area is that you should be careful what you pay for because you might get it.

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