Positioning Pensions for the Twenty-First Century

Edited by Michael S. Gordon, Olivia S. Mitchell, and Marc M. Twinney

Published by
The Pension Research Council
The Wharton School of the University of Pennsylvania

and

University of Pennsylvania Press
Philadelphia
Part I
Defined Benefit and Defined Contribution Plans
This chapter compares the characteristics of defined benefit, defined contribution, and hybrid plans, and reviews recent trends, particularly among large plan sponsors. Benefit policies of a set of large employers are surveyed, followed by a discussion of remedies to some of the practical problems faced by defined benefit plans.

My views and observations regarding defined benefit plans are drawn from a lifetime as a practitioner in providing and delivering benefits in the private sector. These views are not abstract theories, nor do they represent ardent advocacy. While they have evolved from an employer’s perspective and priorities, they also strive to seek a balance among competing viewpoints of employees, plan sponsors, and the public. They recognize the priority of meeting employees’ retirement needs in a world of complex law and custom, where age discrimination in employment is elaborately proscribed and employers cannot mandate an aging employee’s retirement.

**Pension Plan Types and Goals**

Three major types of pension plans provide retirement income: defined benefit (DB), defined contribution (DC), and hybrid plans. The key factor differentiating the basic types is whether the plan defines a lifetime benefit or the annual contribution. In a hybrid plan, features of both basic types are combined, blurring the differences. One such hybrid is the cash balance plan, wherein each plan participant has an individual account for contributions, but because the plan guarantees a specified interest rate on the account as well as conversion rates for commutation
to a lifetime benefit, the plan assumes the characteristics of a defined benefit plan.

There are several important differences between plan types (see also Rappaport et al., this volume). In DB and some hybrid plans, the retiree benefit must be stated in the form of an annuity (one that often may be converted to a lump sum). In DC plans as well as some hybrid plans, the benefit is stated in the form of a lump sum (that also may be converted to an annuity). DB benefits are normally based on pay and/or service. In contrast, DC and hybrid account balances normally grow based on annual employer contributions or credits equal to a percentage of the employee’s pay, plus earnings on the assets in the account. Hybrid plans guarantee the interest rate on accounts and/or the annuity rates for conversion to lifetime benefits.

The funding status of DB and hybrid plans is determined actuarially. In other words, contributions are determined based on actuarial assumptions and are designed to provide the promised benefit at retirement. Moreover, all the DB plan’s assets stand behind all the benefits. In a DC plan, by contrast, contributions are made to individual accounts and determined by the plan formula; the assets in each separate account determine the benefit. In a hybrid plan, a “phantom” account is maintained for each employee, but the total value of such accounts at any given point in time may differ from the trust fund value (i.e., the plan may be underfunded or overfunded). For this reason, some funding flexibility exists in DB and hybrid plans, whereas the DC plan affords no flexibility in funding without changing the benefit.

The funding differences translate into differential patterns of risk borne by stakeholders in the plans. Thus the employer bears the pension plan investment risk and reward in a DB plan, whereas in a DC plan the employee bears the investment risk and reward. In the hybrid plan case, the sponsoring employer bears plan investment risk because the employee receives a guaranteed interest rate on his or her account. Of course, employers can manage and control this risk by establishing reasonable interest rate guarantees. A related reason DC plans are growing in favor is that the sponsoring employer’s costs tend to be more predictable and less volatile that in a DB pension. This difference arises because, in the DB plan, the employer assumes more investment and inflation risk, as well as more of the turnover, disability, and mortality risk, than in a DC pension.

Additional important differences between plan types refer to the employee’s rights over the pension prior to retirement. An employee terminating employment prior to retirement eligibility is entitled to a deferred vested benefit that generally does not change after termination in the DB case (in nominal terms). In contrast, in the DC and hybrid
case, a terminating employee typically may withdraw the account balance and roll it over into an Individual Retirement Account (IRA). Alternatively the funds may be reinvested elsewhere. In this sense, DC and hybrid plans offer greater portability than their counterparts. On the other hand, DB pensions (and, to a lesser extent, hybrid plans) facilitate disability, survivor, and early retirement benefits because they often specify supplementary benefits payable at early ages or on the occasion of death or invalidity.

One factor increasingly noted by large employers is that, for equivalent cost levels, DB plans tend to benefit older, highly paid employees. Conversely, DC and hybrid pensions tend to be more age-neutral and often provide higher benefits to short-term employees and people who change employers. In addition, some companies have found that employees appreciate DC and hybrid plans because their account balances are quantifiable; the concern is that this appreciation may sometimes stem from a poor understanding of the size of the accumulation amount necessary to provide retirement income. Analysts have found in practice that a DB plan will often have lower costs than DC and hybrid plans, even assuming equal investment results on pension assets, because the value of deferred vested benefits in a defined benefit pension is less than the value of account balances accumulated in DC or hybrid plans for those who terminate employment prior to retirement.

**Defined Benefit Plan Goals**

Academics and practitioners have many theories regarding why employers sponsor defined benefit pension plans (Schmitt 1993). For the present discussion, my perspective is that large industrial firms prefer the defined benefit form as the primary plan to meet their retirement objectives. They do so less because of cost efficiency than the effectiveness of this type of pension in achieving desired objectives. Specifically, the DB plan is the most effective human resource mechanism available to remove older, less efficient employees from the workforce in a humane and socially responsible way. In other words, pensions at these large firms are not designed primarily to recruit employees or to tie core employees to the workforce so as to avoid training costs. The fact that these additional results might occur to a greater extent under a DB pension plan than with a DC plan is incidental to the primary goal. These secondary effects result from efforts to control the costs of providing retirement income, and are acceptable to the firm and to employees.

In seeking to design sensible compensation offerings, employers normally start by measuring the cost/benefit ratios of alternative packages, seeking to achieve their ultimate goal. The costs usually considered natu-
rally include retirement benefits and the salary/wages saved at the point of contemplated retirement, but in my experience typically do not include an assessment of recruiting and training costs for replacement employees. For many firms, replacements are either assumed not to be required (as in a case where the firm is reducing in size) or are seen as part of the normal attrition and growth process.

Some firms attempt to reduce plan cost levels and benefit levels by substituting a DC plan in place of their old DB offering. This has been done in instances where the newly framed individual account appears more valuable to younger workers than did the old DB plan’s benefits, which were only available at a future retirement age. However, the problem that can arise is that lower retirement benefits delivered by the DC plan may cause older workers to delay retirement. As a consequence, the effort to reduce costs may fail, and the firm may ultimately pay because it is compensating less efficient workers toward the end of their careers.

A related issue is that a DB plan can deliver a particular retirement benefit or income replacement ratio with precision, whereas the benefit to be generated by a DC account is much less certain and ultimately depends on market share values or other random factors; that is, an employer can focus a defined benefit plan’s replacement ratio on selected retirement ages or have it maximized after a specific period of service. This enables the sponsoring firm to ensure orderly retirement planning, a factor employers find important given legal restrictions over the employer’s right to terminate employment selectively. It is likely that orderly scheduling of retirements over reasonable time horizons makes the firm more efficient and the organization more energetic.

These defined benefit advantages are demonstrated by comparing outcomes under DC and DB plan types for a given date, such as the year of normal retirement, which is when an employer intends retirement to occur and the pension benefit is paid without reduction. Under a defined benefit pension, if retirement is postponed a year, no benefit is paid. The plan saves by retaining that benefit as well as the plan’s investment income for the year, but subsequently another year’s service and pay increase may be charged. In my experience, these benefit savings tend to balance out in large-employer DB plans.

By contrast, in a defined contribution plan the employer sees no savings when an employee postpones retirement one year because the employee retains both the benefit nonpayment and the investment return. As a result, the defined contribution plan creates no incentive to retire at any specific point of time. If the employer has evidence to believe that after a certain age employee productivity does not improve (or is in fact declining), the defined benefit cost pattern is more efficient. This view
assumes productivity as a factor in the provision of benefits in a competitive pay package.

**A Brief Review of Trends**

The trends in coverage and benefits have been surveyed and well reported during the last five years (Schieber 1995, Oliver and Patterson 1993–95). My perspective on these findings is that private pension plan coverage is not very high (only about 50 percent or so), given the 20 years since ERISA. One must be careful with this point as there are sizable differences in coverage reported by different sources. There is good evidence, for instance, that audited tax returns provide more accurate tallies of pension participation than does the Current Population Survey (CPS) based on interviews of individuals. This difference in reporting is huge, on the order of one out of three or 33 percent in some series. No doubt individuals' recollection of their coverage is not very accurate, perhaps because people are unaware or forgetful of being covered or are confused between pension coverage, pension eligibility, and pension vesting.

Despite these caveats, the number of defined benefit plans (and DB participants) has declined in the United States in recent years, whereas the number of defined contribution plans (and plan participants) has increased. Use of the DB pension has dropped less among large employers, but even among these large employers employment has declined as they “right-sized” and sought to improve productivity. In some industries these transitions have been substantial; for example, at Ford Motor Company, it took twenty-five years for the workforce to double between the mid-1950s to the end of the 1970s, but less than five years for employment to be cut in half during the recession of 1979–1982.

To assess very recent trends among large employers, I undertook a limited survey of the pension outlook at twenty companies in 1995. While this is admittedly a small sample, these are very large firms, among the largest in their lines of business. Though specific company names cannot be revealed for confidentiality reasons, the companies are principally in manufacturing; no more than two firms come from the same industry. The industries represented are automotive, chemical, communications, drug, electrical/electronics, metals, oil, retailing, tire, and energy.

To summarize my findings, there was little evidence of recent massive change in the pension offerings of these twenty companies. This was in part true because most of the respondents had both DC and DB plans; only one company relied exclusively on a DC to provide retirement in-
of the group, three quarters, or fifteen of the twenty, had reviewed their pension policy between 1990 and 1994; of these fifteen, seven made changes during that time, six made no change, and two are still considering their options.

Three companies increased the DC contribution while one decreased its DC contribution during this period. One company increased the DB benefit (to remove a competitive deficiency) and two companies decreased the DB benefit for future service but not for prior service (neither of these eliminated the DB plan, however). Only one firm (included in the counts above) both increased its DC and decreased its DB plan. Two other companies continue to explore a possible shift of emphasis to the DC from the DB plan.

These counts overlook changes in benefits for negotiated groups as well as special early retirement windows. At least half the companies increased their negotiated benefits at least once during the five-year period. If these 10 DB increases are netted against the one DB decrease, the result is a net positive of nine increases.

Several possible causes for switching from DB to DC plans have been offered at the national level, prominent among them regulation and its unpredictability (Clark and McDermid 1990). In many employers' view, this regulatory complexity and instability has been increased by the enactment of the 1994 Retirement Protection Act, whose goal is to reduce private DB pension plan underfunding by making more volatile the premiums payable to the Pension Benefit Guaranty Corporation, as compared to prior law. It is my considered opinion that these increased premiums will do less to improve funding than will increased employer contributions along with the continued shift away from the DB pensions. The future does not bode well for those concerned with the broad goals of coverage and participation in pension plans guaranteeing income for life after retirement.

**Employers' Retirement Income Policies**

If the changing array of plans and coverages has been less evident among larger employers, it is nevertheless worthwhile to determine what policies they have followed. This section investigates the policies these large employers have followed with respect to providing cash retirement income and how they have thought about the differences between defined benefit plans and the alternatives.

The survey of twenty large plan sponsors suggests five different approaches to providing pension income, approaches followed by more than one company. These policies appear in Table 1, and may be classified as follows. First, we identified a focus on "employee security,"
Company A recently reviewed its employment security policy. After doing so, it reaffirmed that a long-term relationship between the firm and its core employees based on concern for the employees' security needs was in the company's best interest, and that the benefit plans should support that objective. Thus Company A did not shift from a defined benefit to a defined contribution plan simply to make it easier for employees to leave, or to enable Company A to terminate relationships more simply. Here the approach was not one of "where should retirement income come from" but rather one of "are current benefit plans consistent with company employment security objectives."

Company B has a "market-related" policy of providing benefit levels and types based on competitive surveys for Company B. The market of comparators is made up of leading United States companies in different industries (other companies use the firms in their industry). For retirement income and other post-retirement benefits of non-represented employees, Company B's objective is to provide approximately 100 percent of a benefit value index for each type of benefit and by benefit sector. Other companies using the index can select the comparators and the percentages. When benefit changes are made, the goal is to move closer to the percentage objective where possible, by increases and decreases in benefits. (When adjustments are made for the downward effect on the index of reflecting changes to conform to the 1986 Tax Reform Act, there has been almost no change in the value of the defined benefit or the defined contribution plan indices during the last five years.)

Company C has evolved a policy of providing benefits that are "employment neutral" across demographic factors such as age, service, gender, and dependents. The firm's objective is for benefits to vary by merit and performance per unit of work in a way comparable with compensation. It does not wish to see the benefit plans dominate an employee's decision to stay or leave at any particular point. To the extent possible, it does not want demographics to allocate employer dollars. It expects the benefit plans to influence neither employee loyalty nor the obligation of the firm to the employee.

Company D seeks to align employee behavior with company goals of generating wealth. This is accomplished by placing primary emphasis on stockholder value and the employee in the position of a stockholder. The theme dominates the determination of contributions to benefit plans, the allocation of contributions among employees, and the form of the benefit, especially in retirement income security, which is viewed as just another aspect of compensation.

Company E recently developed a policy to allow more choice by each employee in designing his/her own benefit package. Some minimum coverages are required and the first choices derive from changes to the preexisting program. The retirement plans (cash or health) or savings plans were not included in the first series of choices, but are expected to be involved in the next series. This change will lead to more emphasis of the defined contribution approach.
the traditional concern of the employer to meet the employee’s security needs. Second, we found much discussion of “competition,” that is, a drive to make benefits competitive with other companies as measured by a market survey or a benefit value index (much as employers match competitive salary levels). A third theme was “internal equity,” where companies used benefit forms and value scales to allocate benefit accruals in relation to units of pay. Fourth, we found that some firms emphasized “desired behavior” in that they designed their pensions to encourage specific types of employee behavior. Last, some companies emphasized “employee choice,” wanting to allow employee participation in the allocation of their own individual benefit packages.

In each case, the employer’s concern about retiree benefits clearly extends more broadly than just decisions between DB and DC plans. Strategic benefits decisionmaking for the next decade will therefore inevitably involve more complex problems than previously. Specifically, the pension choice must be made against the backdrop of an evolving division of responsibility among the employer, the worker, and the government; the need for lifetime income versus access to accumulated wealth; retirement replacement ratios; provisions for surviving spouses; whether pensions are offered for early leavers; how disability is treated; and various macroeconomic factors including inflation and productivity growth.

Suggested Remedies

There are several specific policies that could begin to remedy some of the problems confronting defined benefit pension plans in the United States. I begin from the perspective that, for many employers and firms, combined DB/DC plans would be preferable to one dominated by DC plans alone. My list of proposed changes is not exhaustive and, given the need to avoid further destabilizing the qualified plan system, avoids drastic medicine.

Refining Pension Regulation

One regulatory change that would be most beneficial would be to revisit the rules allowing the amount of lump sums to be paid upon retirement from qualified plans. Currently many workers and retirees can take all of their accumulated amounts on termination (or retirement) in the form of a lump sum. Perhaps a better system would permit only half, or perhaps one-quarter, of the pension assets to be taken as a lump sum. A life income payment would protect better against the risk of longevity and would help assure that payments would continue during the life of the retired employee, as well as covering the surviving spouse. With growth
in life expectancies. this is a vital concern. Similarly, pension withdrawals and loans should be greatly curtailed.

If we are further to restrict lump sums in DB plans, there is a parallel question of whether a DC account should be required to be taken as an annuity (or over the full lifetime with expectancy installments). It seems illogical to consider the individual account an adequate substitute for the DB plan without requiring that a portion of it be paid for life. A more complex, but in my view more just, requirement would be that an employer should designate a pension plan that is to be termed the base or life income plan, and then would require that base plan to meet the 50 percent or 75 percent life income value requirement (including Social Security benefits, most probably). Likewise, a base plan should not be allowed to provide withdrawals or loans prior to retirement and the commencement of the lifetime payments (with or without hardship). In a world of diverse plans that the government has so willingly combined for benefit limitation and tax purposes, some notion of a minimum lifetime pension could apply.

Another proposal would be to harmonize the age and service rules between defined benefit and defined contribution plans. Because service rules are much more elaborate for DB plans (particularly for breaks in service), employers have found that it is virtually impossible to run both plan types for the same group of employees with one set of service rules. For example, in a DB pension, all the employee's service except for breaks in service must be taken into account for determining the worker's nonforfeitable benefit percentage. However, rules describing a break in service vary depending on whether there was at least one year's service prior to the break. Current regulatory practice states that service before a break is not required to be counted for vesting. In my view, this form of regulatory micro-management should be eliminated.

A further change would be to allow a one-time change in pension plan normal retirement ages to bring them into alignment with Social Security rules, as amended. In 1983, Social Security's "normal" benefit age was raised, and further age changes are being discussed (see Gramlich, this volume). The regulation has vastly different effects on the two different types of plans. Initially, DB plans were required by ERISA to treat age 65 as the normal age at which unreduced benefits must be paid. Recent legislation allowed a higher age for DB, but did not change the age for existing accruals and further required the higher age for stepped-up benefits on compensation over the Social Security tax base. This distorted pension plan early retirement reductions as well as the pension system's definition of the "normal" retirement age. The rule should be changed to permit, but not require, alterations in the plan's normal and early retirement ages as well as reduction factors for accrued benefits.
Otherwise, a private plan is locked into a normal age 65 or a second plan must be created, one that pays part of the benefits at age 65 and further benefits at the Social Security age. Similarly, a remedy should be found for DB plans’ past accruals that would allow some flexibility for the plan sponsor to adjust the normal retirement age and share the benefit/cost effects with the participants. This would avoid penalizing one type of plan (the DB) in favor of the other.

In order to achieve system solvency there may be further changes in Social Security’s normal and early retirement ages. These proposals would therefore affect private plans that supplement Social Security. Here it is critical to give employers sufficient advance notice, and a clear explanation of what is to be done, to ensure long-term stability of retirement planning. It would be in the interest of national policy as well as of employers and employees to allow age changes in private plans. This would encourage more employees who are able to continue to work to the full Social Security age to do so.

Other changes many large employers might support would be to increase the annual benefit limit for DB plans to 100 percent of the covered compensation limit (currently US $150,000). This would make the defined benefit limit five times, not four times, the limit on annual DC contributions. This is essential to restore the relationship initially established under ERISA and would begin to reflect the underlying relation between costs/contribution and benefits values under the two types of plans. As an alternative suggestion, it might be possible to allow DB benefits to be provided under a nondiscriminatory plan, funded in a separate trust without tax deduction to the employer until benefits were paid, but with tax exemption on trust earnings, FICA taxation on the contributions when made, but deferral of other taxation to the employee until benefits were paid. This restructuring might make employers willing to deliver more via tax-qualified plan benefits, without the up-front tax loss.

Adjusting the Restrictions on Funding

Under the rubric of funding and contribution requirements/limits, a suggestion on employee contributions seems eminently sensible. Specifically, the idea would be to allow tax-exempt employee contributions to DB plans in amounts up to the same limits for 401(k) contributions. A trend has been fostered in the private sector away from contributory pensions because, at present, employee contributions to pension plans are always deposited after having paid income tax. There is no logical policy reason to discriminate in this way against the DB plan, an issue that gains in importance because of the need for employee cost sharing and employee choice in the future. (The limitation could apply to each plan
individually and to the total addition to both types of plans.) This proposal would make cash balance pension plans with their automatic life income provision more competitive with other DC plans.

The 1994 Retirement Protection Act made drastic changes in minimum funding for DB plans. It increased the funding target for the plans by mandating interest and mortality standards not based on experience but based on selected standards. The 1993 Tax Act cut back the funding allowed for private plans. Neither act helped plan sponsors to fund their plans by a regular and orderly schedule of contributions. One suggestion that might help deal with these consequences would be to increase the annual limit on the employer's maximum funding that was deductible, which could be done by allowing defined benefit plans to project future inflation in the compensation considered in the benefits in the current year's maximum funding (at a minimum). Beginning in 1994, the maximum amount of pay that may be considered in determining a defined benefit for funding in the plan year was cut from US $235,840 to US $150,000. While the new limit sounds large, it is inadequate when inflation and pay growth are considered. Indexing the limit in future years does not help this year's actuarial calculation. Thus employees who earn as little as US $50,000 today and receive pay increases only slightly greater than inflation will not be able to have their benefit funded prior to retirement.

Another idea would be to increase the maximum funding limit for non-pay-related benefits from 100 percent of the current liability by permitting projection of historic benefit increases, but not in excess of 125 percent of the current liability. Consequently sponsors of flat-rate benefit plans would be permitted to continue to contribute to those plans, even when the funding ratio approached or exceeded 100 percent, and to build a reasonable cushion for periods of adverse experience.

Many pension experts have called for increasing the alternative funding maximum for pay-related benefits from 150 percent to 175 percent, which would allow sponsors of final-pay formulas with young, short-service workforces and few retirees to contribute on a more level basis with respect to payroll. This would be helpful to new businesses, including employees hired by new plants started by United States or foreign companies. Likewise, it would be useful to increase or eliminate the 25 percent payroll limitation for aggregate contributions to DB and DC plans of the same sponsor, when the contributions meet individual plan limits. The 25 percent limit is an old rule created to avoid evasion of excess profit taxes during World War II and makes little sense in the current context of high minimum requirements, variable pay, and volatile markets. Removal of the rule would help sponsors with mature work-
forces whose minimum requirements for DB plans can be quite large in a given year. The size of the contribution will be even more unpredictable because the 1994 law requires contributions of 90 percent of the increase in the underfunded current liability (to avoid harsher requirements) or 30 percent of the aggregate unfunded current liability, including increased underfunding from drops in interest rates and declines in security markets.

Finally, actuaries tend to agree that a reasonable mortality forecast is required for DB plans, one that is more reflective of their own experience than as the one required under current rules. Large firms have a more open, more diverse, and larger pool of lives than those used for the group annuity business. We need to avoid including the selling and profit margins, as well as the mortality selection, in establishing an accurate basis appropriate for these larger employee groups. We also need to understand the unnecessary margins that can be built into projected mortality which helps commercial annuities state a higher interest rate in the annuity basis.

Conclusion

It would be ideal if a new private retirement system could be designed from scratch. I suspect that parts of an ideal system would look quite different from what we have today even if we did not choose new goals. If we did select new goals, we would probably want rather more emphasis on adequacy and singleness of purpose for DC plans and less cumbersome and complex rules for DB plans. The layers of DB regulation were designed with the best of intentions, but their result has been self-defeating and must be seriously questioned. Because the costs and liabilities are so high, employers’ motivation to provide for adequate replacement income is more fragile than many policymakers assume.

Initially, the regulatory system’s goals were to foster DB coverage, to accrue benefits more proportionally with service, to vest benefits earlier, to require higher funding, and to guarantee benefits against all risks, including plan termination. The outcome of these mandates seeking perfection for the tax-qualified plan system has been perverse overall, because it has discouraged DB coverage and led to smaller DB benefits as well as more non-qualified DB benefits. The latter outcome is the most ironic because in non-qualified plans, vesting, funding, and benefit guarantees (the goals of all the reforms) are nonexistent. This is not solely an issue relevant to the highly paid worker; rather, thousands of employees are being affected today at both large and small companies.

Meanwhile, in other parts of the developed world, there is a widespread perception that funding or plan termination is not a serious prob-
lem. Germany's private plans are more than 50 percent unfunded, yet no alarm ensues (see Bodie, Mitchell, and Turner 1996); in contrast, in the United States, a unfunding of less than 5 percent brought on the worst kind of crisis predictions in Washington. In Britain, plan sponsors can contribute on an orderly, long-term basis without short-term interruptions imposed because funds hit legal full funding limits. Why is the United States government alone among western democracies in having become so distrustful of private plans and their sponsors? The rules and tax advantages were designed to foster private plans, at least initially. Why is it now a bad outcome that employers provide benefits according to their objectives and policies? Why should savings and its private investment have such a low public priority?

On both sides, there is a greater need to appeal to the people responsible for setting and applying public policy. The government must begin to realign its policy goals, to become more supportive of private plan sponsors, and to help the private sector provide reasonable financial protection for old age. Unless we develop an environment conducive to private pension plans, the nation's retirement system will remain in sorry shape. Social Security is not solvent in the medium and long run, and benefits are more likely to be cut gradually than are taxes to be increased. All this implies, in my view, that it is time for experts and policymakers jointly to seek national solutions to a problem we have little time to solve.

The views reported herein reflect the author's opinion and not the views of his former employer.

Note

1. These results cover each firm's largest employee group and may exclude or include negotiated benefits for a part of the group.

References


