Retirement Benefit Structure in the 1990s
Defined Benefit vs. Defined Contribution Plan Structure

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There has been a great deal of publicity about the decline in defined benefit plans and the increase in defined contribution plans in the United States. Some commentators have indicated that they feel defined benefit plans are dying. Challenges to those who are providing retirement benefits are to do so within the context of a very complex environment including an aging population, a relatively mobile workforce, difficult business conditions and ever-increasing regulatory complexity.

Why Employers Sponsor Pensions

Employers sponsor retirement plans to:

- Promote and reward career employment
- Facilitate orderly retirement, and to have means to influence retirement patterns
- Secure advantages of tax effective compensation and tax effective means of savings
- Offer employees means to accumulate wealth
- Provide competitive benefits and conform to community custom
- Meet important employee needs

Employers define goals for retirement benefits in different ways. It is common to refer to two extremes of benefit plan philosophy with the terms compensation and entitlement. Generally most employers' philosophies fall between these extremes. Traditional entitlement-oriented employers generally define retirement plan goals using a concept of "benefit adequacy" based on the percentage of retirement income replacement at a specified retirement age, generally 65, and they include in the measurement Social Security, and all employer provided benefits. Sometimes, but not usually, retiree health benefits are also factored in.

A typical policy of a major organization which is traditional and relatively entitlement-oriented might read something like this. "Company X values career employment, recognizes that it has a responsibility to provide pension benefits to career employees and to educate them about retirement. The responsibility for retirement security is shared between the employee, the government, and the employer. Benefits should be adequate to allow a reasonable standard of living after retirement; replacing income is the model on which the pension plan is to be designed. Employees should be encouraged to save for their own retirement and rewarded for doing so. The employer is willing to absorb significant financial risk in connection with the retirement benefits."

In contrast, a company with a compensation-oriented philosophy might have a policy statement like this. "Company Y sees employees as primarily responsible for their own retirement planning. It will provide access to wealth accumulation opportunities and tax-effective retirement savings vehicles, and expects employees to participate in saving for retirement. Health benefits after retirement are the employee's responsibility. The employer's contribution to these savings programs will reflect the employee's compensation and the results of the company."

The type of retirement plan chosen generally fits with the objectives of the employer. If the employer's objective is heavily oriented to promoting and supporting career employment, and to providing adequate benefits to those with long service, the employer is most likely to choose a defined benefit plan as its base retirement protection. If the employer's main objective is tax-effective compensation, either type of plan can be chosen, but pre-tax employee contributions are possible only in defined contribution plans (either 401(k) plans or 403(b) plans depending on the type of employer). If the employer's main objective is wealth accumulation or if career employment is unimportant, defined contribution plans are likely to be chosen. Medium and smaller employers are likely to choose defined contribution plans because of the administrative cost and complexity of managing defined benefit plans.

The employer's attitude to retirement plan risk is also likely to play a role in the choice of plan type. Final average earnings defined benefit plans involve both pre-retirement inflation risk and investment risk. Employers who wish to avoid retirement plan risk are likely to stick with defined contribution plans.

Defined Benefit and Defined Contribution Plans

For the same benefit level at retirement age, defined benefit plans are typically considerably less costly because:

(a) Significantly lower benefits are paid to those who terminate employment after vesting, but well before retirement age; many plan sponsors favor the defined benefit plan pattern because their goal is to pay benefits to those who stay to retirement.

(b) Over the long run, a dollar invested in a defined benefit plan usually earns more investment income than in a defined contribution plan

because plan sponsors typically use a balanced portfolio to maximize investment returns consistent with their risk profiles, whereas 80% or more of most defined contribution plan dollars when employees are given investment choices, are generally invested in fixed income securities.

There are some key differences with regard to these two plan types. They are summarized below:

	Defined Benefit	Defined Contribution
Typical pattern of benefit accrual	Heavy in later years	Heavy in earlier years
Benefit paid to early leavers	Relatively low	Relatively high
Investment risk	Borne by employer	Borne by employee
Usual form of benefit payment	Monthly income	Lump sums
Provides benefits targeted to income replacement level	Yes	Not usually
Benefits fully funded	No	Yes
Offers PBGC Insurance to cover unfunded benefits	Yes	No, but not necesaary
Requires actuarial valuation	Yes	No
Helpful in structuring early retirement windows	Yes, can be funded overtime	Can be used, but must be funded at one time
Permits post-retirement benefit increases	Yes	No
Permits subsidized early retirement	Yes	No

The importance of long run investment returns can be easily illustrated. If a $100,000,000 fund can earn an extra two percent a year, that is $2,000,000. Non-contributory benefits are funded in total by employer contributions and investment earnings on the pension funds so that each dollar of additional investment return is a dollar that the employer does not have to contribute in the long term. Equities have historically substantially outperformed fixed-dollar investments over long periods of time by 3% to 5%, depending on the type of equity and time period. In exchange for the greater returns, equities have significant year-to-year fluctuations. Larger defined benefit plans generally include substantial amounts of equities in their portfolios, most often in the range of 40% to 70%. Defined contribution plan money, when participants chose investment options, is often invested heavily in fixed-income investments. The difference in investment mix can easily result in a difference in average returns between a typical defined benefit and a typical defined contribution plan in the range of 1% to 3%.

Implications of Lump Sum Payments

Defined benefit plans typically pay benefits as annuities, whereas defined contribution plans typically pay benefits as lump sums. Favorable tax treatment has encouraged lump sum payouts, even though the tax treatment today is less favorable than it was a few years ago. Studies have shown that early lump sum payments are often spent rather than saved. This area is relatively controversial today with those concerned about retirement security opposing lump sums or favoring mandatory transfer to another retirement savings plan, and with those concerned about personal choice and effective taxation favoring lump sums.

Recent Trends

The Pension Benefit Guarantee Corporation (PBGC) published an analysis of the changing utilization of defined benefit and defined contribution plans in December, 1990, titled "Pension Plan Choice." Their study states:

> "During the 1980s, among workers covered by a private pension, the portion covered primarily by a defined benefit plan fell substantially in favor of defined contribution plans. Previous work has shown that roughly 50% of the change was attributable to employment shifts in the economy in favor of firms that traditionally have offered defined contribution plans...."
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> "The aggregate results, however, commingle two contrary trends relating to plan size. Among plans with more than 100, but fewer than 1,000 participants, there was a clear shift in preferences away from defined benefit plans. The data support two potential explanations for these preference changes: increases in administrative costs, and the introduction of a new type of pension plan introduced in 1979 legislation. This was a reference to 401(k) plans which permitted pre-tax employee contributions. The study did not include plans with fewer than 100 participants."
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> "Among plans with more than 1,000 participants, there was no evidence of a shift in preferences away from defined benefit plans. In fact, there was a small drift in favor of these types of plans."

The legislation and changes in accounting rules during the 1980s have vastly increased the cost and complexity of managing defined benefit plans, and in the opinion of some observors, have virtually "forced out" smaller employers who

previously sponsored such plans. The PBGC recently commissioned Hay-Huggins to perform a study of administrative costs by plan size. Their study showed the following average annual defined benefit administrative costs per participant for different plan sizes:

Number of Participants	1981	1991
15	$161	$455
75	115	259
500	56	133
10,000	19	53

Their study also showed considerably lower costs for a small employer managing a 401(k) plan, a type of defined contribution plan which permits employees in for-profit organizations to save on a pre-tax basis.

It should also be noted that insurance companies, banks, etc. offer packaged "pension products" for smaller employers. Today, they generally offer only defined contribution plans, whereas a decade ago, they also offered defined benefit plans. These products enable a small employer to use the package without custom design, or very much management. The regulatory complexity, however, essentially killed the packaged defined benefit plans.

Typical Structures by Type of Employer

Retirement planning is very different by size and type of business. Practices by type of business are as follows:

Larger sized employers: nearly all employers sponsor plans. Typical program for larger employer includes a base layer which is a noncontributory defined benefit plan. Matched savings (usually through a 401(k) plan) generally

supplements the defined benefit plan. Some employers use defined contribution profit sharing plans for salaried and defined benefit plans for hourly employees. Health benefits generally also continued after retirement.

Medium sized employers: more likely to use defined contribution plans. Very likely to offer a retirement benefit. Lower occurence of retiree health.

Small employers: most common pattern where plans are offered is defined contribution. Less likely to offer retirement benefits and very unlikely to offer retiree health.

Multi-employer plans: generally defined benefit plans with negotiated contributions and flat-dollar benefit levels.

Not-for-profits: larger not-for-profits follow other larger employers. Smaller not-for-profits rely heavily on tax-sheltered annuities, a special type of defined contribution plan for not-for-profits. Relatively few not-for-profits offer retiree health.

Public employers: defined benefit plans are more common, but they are not subject to the same rules as private sector plans. Unlike private sector plans, these plans are likely to be contributory.

Competitive Information - Department of Labor Survey

The 1989 Department of Labor Survey provides data on 32.4 million employees in the nation's private nonagricultural industries. Establishments with more than 100 employees are included in the survey.

Key findings from the DOL survey are as follows:

- 63% of the employees were covered by defined benefit plans.
- 76% of those with defined benefit plans were covered by earnings based formulas.
- 85% of the participants with earnings formulas had benefits based on earnings in the final years of employment.

The DOL survey provided average replacement rates for defined benefit plans from the private plan. The percentage of final average earnings replaced by year of service for different pay levels is as follows:

	Years of Service		
	10	20	30
$15,000	12.1%	23.4%	34.6%
25,000	10.4	20.0	29.7
55,000	10.0	20.2	29.8

Going Beyond the Cash Benefit at Age 65

Retirement benefit quality or adequacy is generally measured by looking at the cash benefit at age 65 for an employee who is hired who works a full career and saves in accordance with any employer-based matching program. In order to truly evaluate the quality of a retirement program, a number of additional issues must be examined including:

(a) Actual saving behavior and implications of such behavior for benefits at age 65 if the adequacy analysis assumes savings

(b) What happens to married employees whose benefits are paid as joint and survivor annuities

(c) Implications of cost-of-living increases after retirement

(d) Cost of medical coverage after retirement and need for long-term care, particularly at the very old ages

(e) If retirement ages are flexible, the situation at different ages

(f) Effect on people with different career patterns.

An evaluation of adequacy over time in defined benefit and defined contribution plans will generally show that defined benefit plans are much better able than defined contribution plans to provide a pattern of benefits which fits income replacement goals for career employees. They are also much more flexible in that early retirement subsidies, postretirement increases and early retirement windows can be offered. However, they tend to provide low benefits for employees who leave at early ages, are viewed as much less portable, and are much less appreciated by younger employees. When choosing plan types from an adequacy point of view, the question will probably become adequate for whom?

Future Issues and Choice of Plan Type

There are future demographic and public policy issues which will impact retirement systems in the United States, both Social Security and private plans. There will be severe strains on resources as a result of demographic shifts and particular population aging after 2015.

In spite of the fact that there has been a great deal of pension and employee benefit related legislation over the last few years, the outlook is for further legislation with the budget deficit, rather than retirement security as the main driver of the legislation.

General Impact of Legislation in the Last Decade

Overall, pension legislation has served to move smaller and middle-sized employers away from defined benefit plans. It appears that this will reduce retirement security in the long run.

There is nothing on the horizon which will reverse this trend.

Portability

Many Americans change jobs repeatedly during their working lives. In the last few years with the restructuring of many companies, long-term employees have often been involuntarily terminated from what they expected to be career jobs. Portability has also been cited as being particularly important to women as they are seen as more likely to change jobs or spend part of their careers out of the workplace. Defined contribution plans are seen as more portable primarily because they pay benefits in lump sums, and because it is easier to see how benefits are moved.

The situation today is as follows:

Vesting is required in private plan ERISA protected benefits after five years (or on a graded three- to seven-year scale). In operation, however, there remain outstanding portability issues in that:

- Inflation protection preretirement virtually never applies after termination of employment in a defined benefit plan.

- Defined contribution (or defined benefit) plan money distributed on termination is often spent rather than saved for retirement so that this form of portability gives flexibility, but deteriorates retirement security. Since these funds can be rolled over into Individual Retirement Accounts, it is participant behavior that is the problem.

- Recently issued Internal Revenue Code nondiscrimination regulations under Section 401(a)(4) of the Code serve to severely limit the portability options within a defined benefit plan if the plan is to be able to test for nondiscrimination the less complicated testing procedures (safe harbors).

Portability is a politically visible pension issue, and numerous bills have been introduced to address this problem. Generally, they would limit the access to retirement funds and require rollover into another retirement vehicle.

Life Expectancy and Population Composition

Life expectancy has increased considerably over this century, and life expectancy at the older ages continues to increase. The elderly population is projected to grow in absolute size and as a percentage of the total population because of both increased life expectancies and as a result of the aging of the Baby Boom. It has been projected that, on average, women in their 30s and 40s today will spend 15

years as a widow. This points to the importance of women planning for their own security and to the importance of survivor benefits.

Costs of public and private pensions and all programs for the elderly will inevitably increase as a result of the changing age mix of the population. While defined benefit plans decreased in popularity while the Baby Boom was in the twenties and thirties, it is quite likely that this will reverse as they age and as the value of these plans is again recognized.

Savings Behavior of Americans

More employers are expecting employees to take more personal responsibility for retirement, but saving rates among Americans have been dropping. Personal savings as a percentage of personal income dropped from 8.1% in 1970 to 4.2% in 1988. In combination, the low level of personal savings and the long-term decline in personal savings is alarming when considered in combination with pressures on long-term government and business spending for retirement.

What This Means to Employers

Defined benefit plans are not dead, and they may grow in importance again in the future. The trends and forces impacting the future of retirement benefit adequacy indicate that there will be increasing pressure on both government and business resources, and that in spite of the gains with regard to the security of the elderly in the last 25 years, the future has many challenges. One of the biggest areas of concern is that while a variety of institutions are looking to the individual to assume more responsibility on a personal level, there is no evidence this is happening, and if anything, savings is dropping.

An analysis of the population situation also leads one to question the viability of current retirement ages in the long term. Defined benefit plans are preferable if it is desirable to change retirement ages since such plans offer the employer more control over retirement incentives.

Employers will have an ongoing challenge in order to effectively deal with retirement security issues in an environment that promises to be increasingly difficult and somewhat hostile to retirement security.