Part II
Emerging Challenges to Benefits and Compensation Design

Chapter 6
Implications of the Difficult Economy for Company-Sponsored Retirement Plans

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After two decades of economic growth in the United States, a combination of forces has propelled the economy and benefit plan sponsors into a new and less prosperous environment. Equity markets, particularly NASDAQ stocks, have fallen dramatically, and some stocks are down 80 percent or more from their recent highs (Value Line Investment Survey 2001). High technology, once an engine of growth, has fallen out of favor. An electric power crisis gripped California and people speculate about similar problems for other parts of the country. Utility companies, long seen as a safe investment, now seem to have an uncertain future. Many financial service and insurance firms have released disappointing earnings.

How have pensions responded to this negative economic news? In theory, pensions are long-term arrangements, so pension investing should reflect the long-term prognosis for the economy. In the United States, pensions are provided by both defined benefit (DB) and defined contribution (DC) plans, with sponsors making investment decisions in the DB case, and employees making many more decisions in DC case. In both types of plans, investment decisions should be made with a view to the long term during which funds will be accumulated, as well as the lengthy period during which funds will be drawn down.

In practice, of course, pension plans have always operated in an environment of economic turmoil and change. Nevertheless, in our view, recent economic developments will likely have a greater impact on pension plans than did earlier shifts in economic conditions. This is partly because of the growth of DC plans, which implies that more of the pension assets are employee-controlled. Though some participants take the long view, others find this difficult to do, especially if they are nearing retirement. In addition, many people were unprepared for the reemergence of the

business cycle, since the period of economic growth leading up to 2001 was so very long.

The economic uncertainty also coincides with another benefits trend, namely, the growing importance of employee stock ownership. The National Center for Employee Ownership recently reported that 13 percent of employer stock is now owned by employees through various employee benefit programs and broad-based stock option programs (NCEO 2001). Firms that stressed employee ownership in the past may now be forced to revisit retirement benefit design, in view of the stock market's erratic performance.

The prevalence of company stock in retirement plans and other compensation means that employees have become concerned not just about market performance, but also about the performance of their own company's stock. Table 1 illustrates the performance of broad market indexes for one and five years ending first quarter, 2001, as compared to well and poorly performing Dow index individual stocks. The impact of the economy on individual plans depends on the plan's specific investments and, of course, on participants' investment elections. Those heavily concentrated in a single company stock are likely to be more exposed to market fluctuations, than are more broadly diversified plans holding the market basket.

When stock is available as a DC plan investment, the amount people elect to hold in company stock depends on whether there is employer-directed investment in that stock. Table 2 confirms that plans having employer-directed investments tend to be more heavily concentrated in equities overall, than are other DC plans. Furthermore, DC participants tend to invest 20 percent of their account balances in company stock when investment in employer stock is voluntary. But when an employer directs some of the balance to company stock, 48 percent of the total balance (including 29 percent of the participant-directed balance) tends to be invested in company stock (Holden and VanDerhei 2001).

TABLE 1. Performance of Stock Market Indexes Compared to Individual

	1-year change (ending 3/31/01)		*5-year change (ending 3/31/01)*
S&P 500	–23%		+80%
NASDAQ	–60%		+67%
Dow winners			
Phillip Morris	+126%	Wal-Mart	+339%
Boeing	+47%	Microsoft	+324%
Dow losers			
AT&T	–62%	AT&T	–48%
Intel	–60%	Kodak	–44%

Source: Wall Street Journal, 2001 <www.wsj.com>.

Another theme influencing the corporate environment is the "war for talent." Over 90 percent of multinational employers indicated that this is a priority in the human resources field (Mercer 1999). The recruiting and attraction problems that companies face vary with the business cycle as well as the product life cycle, implying a need for specific skills. More recently, companies have been faced with having to simultaneously layoff and hire for growth areas, at the same. Looking at the long term, there will be significant skill shortages as the baby boomers retire with a smaller cohort replacing them (see Lofgren et al. this volume; Riche this volume). Even though equity prices have declined, employment has thus far remained relatively robust; business is still faced with key skill shortages. Figure 1 illustrates U.S. unemployment patterns in the last thirty years, indicating that it remains below historical levels.

In the twenty-first century, demographics will increasingly interact with economics. Slowly, the definition of retirement is changing, as people build

TABLE 2: Impact of Company Stock on Asset Allocation by Age (1999)

Age cohort	*Equity funds*	*Company stock*	*Balanced funds*	*Bond funds*	*Money funds*	*GICs*[a]
Plans with employer-directed and participant-directed balances						
Total balances (employer-directed and participant-directed)						
20s	36.6%	48.1%	5.5%	0.6%	3.4%	5.4%
30s	32.1	52.4	5.3	0.7	2.2	7.0
40s	30.2	50.9	5.6	1.1	3.3	8.4
50s	29.8	46.4	6.4	1.5	4.5	11.2
60s	28.8	36.1	7.2	2.9	8.7	15.9
All	30.2	47.6	6.0	1.4	4.2	10.2
Participant-directed balances only						
20s	47.2	34.8	7.0	0.8	3.9	6.1
30s	46.6	33.3	7.5	1.0	2.8	8.6
40s	44.2	30.9	7.9	1.6	4.5	10.4
50s	41.0	28.8	8.2	2.1	6.0	13.4
60s	35.6	22.6	8.7	3.6	10.6	18.5
All	42.1	29.3	8.1	2.0	5.6	12.5
Plans with company stock investment option but no employer-directed contributions						
Total balances						
20s	58.6	17.7	8.3	1.7	6.2	4.4
30s	56.5	19.5	8.6	1.9	5.1	5.9
40s	51.1	20.9	9.2	2.3	5.5	8.6
50s	45.9	20.4	10.4	3.1	6.2	12.1
60s	38.2	18.7	11.3	4.1	8.4	17.6
All	48.7	20.2	9.7	2.7	6.1	10.4

Source: Derived from Holden and VanDerhei (2001).
Minor investment options are not shown; therefore row percentages will not add to 100 percent. Employer-directed balances are invested in the plan sponsor's company stock.
[a] Guaranteed investment contracts.

phased retirement programs and move into new careers. Baby boomers are crossing the age-55 threshold, the age at which retirement has been permitted in many corporate pension plans. Some organizations have even earlier retirement ages, as in public utilities and health care. What is changing is that workers with liberal early retirement benefits are increasingly leaving their long-term employers, and then they are moving into "bridge" jobs, or jobs in new organizations that can be part time or in a new area.

Concerns Regarding Retirement Plan Financing

Poor capital market performance has a negative effect on retirement plans, though how this plays out depends on the relative movement of equity markets and interest rates. Sometimes changes in these items offset each other, and in other cases, they compound each other. Indeed, if pension expense is large compared to the earnings of the company, a change in pension expense results in a material change in earnings per share.

Issues Pertinent to Defined Benefit Plan Finances

A plan sponsor offering a DB plan must spread long-term plan costs over employees' working lifetimes, based on actuarial methods and assumptions. The one-year cost of a pension plan is specified as the value of benefits earned (or attributed to) the current year, adjusted by a portion of the difference between plan assets and liabilities. If plan assets exceed liabilities, pension law and accounting standards consider the plan to be overfunded; if liabilities exceed assets, there is an unfunded liability.[1] For DB plan valuation, pension expense must be computed as the amount charged for the plan and reported in the organization's profit and loss statement; this value

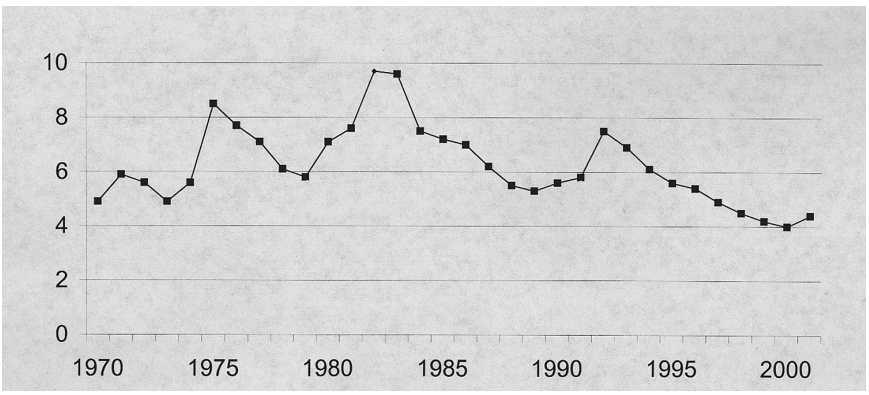

Figure 1. U.S. unemployment rates over time. Source: U.S. Department of Labor, Bureau of Labor Statistics (2000). Unemployment rate in 2001 an average of first 7 months.

is determined subject to the requirements of the accounting profession. Pension contributions refer to the cash contributed to the plan, and amounts are determined by U.S. pension law.

Table 3 compares the key characteristics of these alternative pension cost calculations, which differ because they serve different underlying goals. For

TABLE 3. Characteristics of Pension Expense and Pension Contributions

	Pension expense (amount charge to profit and loss)	*Pension contributions (cash contributed to pension fund)*
Applicable rules	Securities and Exchange requirements and financial rules (Statement of Financial Standards Number 87)	Federal law, the Internal Code defined a minimum contribution and a maximum limit
Goals	Proper matching of revenue and expense and comparability of results between companies	For the minimum, security of plan participants and for the limitation of what can be invested tax deferred fund
Choice of methods for calculation	Very limited	More flexibility
Method prescribed for measurement of assets	Market value, with some permitted	Market value, with some permitted
Discount rate used in calculating liabilities	Must be based on current market and adjusted annually if rates change	Based on long-term expected
Special problems with calculation	Changes in discount rates create significant volatility; can be a problem when asset values and discount rates drop at the same time	In some cases, contributions are volatile. There are discontinuities the spreading of surplus and liability. If there is a surplus and liability. If there is a surplus, no contribution is allowed. If the unfunded liabilities exceed limits, extra contributions are needed
Added costs for plans	None	Additional PBGC premiums are required
If assets exceed liabilities	The excess (or surplus) is used to offset pension cost and gradually recognized as income in the profit loss statement	No contribution is permitted

Source: William M. Mercer, Inc., unpublished.

accounting rules, one goal is to match revenue and expense, since the allocation of costs over time is critical. A second objective is to support comparability of financial results across organizations. For pension funding law, the intent is to ensure that adequate funds are set aside to meet obligations to participants, and also to ensure that funds on which investment income tax is deferred are not excessive. These two sets of rules sometimes come into conflict, making it difficult for the nonspecialist to interpret the differences.

When interest rates fall and equity returns disappoint, this has a particularly painful impact on DB plans. The 2000 market decline produced substantial increases in both pension expense and pension contributions for some organizations, due to declines in assets and increases in liabilities. Some firms also had very large pension liabilities compared to their shareholder equity and other measures of organization size.

An illustration of how pension costs can be affected appears in Table 4. Here the cost can be considered to be the value of benefits earned in the current period, since assets fully cover benefits earned in the past. However, if asset values fall by 25 percent and the value of liabilities rises by 10 percent, the plan's financial position changes dramatically. A 50 basis-point drop in the discount rate boosts plan liabilities by about 10 percent. To show how this unfavorable climate can produce major changes in the sponsoring company's financial position, note that Company A's cost is the

TABLE 4. Illustration of Pension Plan Financial Position Under Different Scenarios

	Company A—established company	*Company B—mature company: retirees outnumber active employees*
Scenario 1: illustration of pension plan financial position: Value of benefits earned, liabilities and assets for two companies		
Value of benefits earned in current year	$10,000,000	$10,000,000
Liability for benefits Earned to date	$60,000,000	$150,000,000
Assets	$60,000,000	$150,000,000
Scenario 2: illustration of pension plan financial position changes due to adverse change in economic situation: Discount rate up ½%, assets down 25%		
Value of benefits earned in current year—lower	$11,000,000	$11,000,000
Liability for benefits earned to date	$66,000,000	$165,000,000
Assets	$45,000,000	$112,500,000
Unfunded amount to be spread into future costs	$21,000,000	$52,500,000

Source: Author's calculations.

$11M benefit value plus amortization of $21M. Company B must amortize $52.5M. The situation would be even more dramatic had assets exceeded liabilities prior to the change; the firm would have gone from making no contribution to having to make a substantial contribution. Such changes in pension expenses and contributions can be moderated somewhat by using smoothing techniques, but these can only work to some extent.

An indication of the financial health of DB plans prior to the market downturn is available from data collected by the Pension Benefit Guaranty Corporation (PBGC 1999). At the outset of 1997, underfunded DB plans held assets reported at $353B and liabilities of $401B, for a total underfunding of $48B. By contrast, overfunded plans held assets of $1,014B and liabilities of $790B for a total overfunding level of $223B. What this meant is that many plan sponsors entered the downturn with very well funded plans; indeed some had not made cash contributions for several years.

In practice, market fluctuations affect each pension plan's asset mix, funding level, and investment policy differently. While the precise picture for DB plans going forward is not fully known yet, some have called 2000 "the worst year in pension history" (Ryan 2001). This is based on expected returns on pension assets assuming a representative portfolio of 5 percent cash, 30 percent bonds, 60 percent S&P 500 equities, and 5 percent international equities. This asset mix produced an asset return of 2.5 percent for 2000, which combined with an anticipated increase in pension liabilities of 26 percent. The result for this representative DB plan was a negative change in funding by 28.5 percent. By contrast, the worse previous year for DB plans was 1995, when the funding position fell by 12.5 percent (Ryan 2001).[2] Clearly, an unfavorable economic environment will likely increase both pension expense and funding requirements for many firms. To the extent that a plan sponsor bases its funding and expense calculations on smoothed asset values, the impact may be smaller; for others, it will be of greater concern.

Issues Specific to Defined Contribution Pensions

The 1990s saw rapid growth in retirement system assets, resulting from mainly from DC plan growth. When markets fell (see Figure 2), this was to some extent offset by new cash flowing into retirement account mutual funds (Investment Company Institute 2001). In other words, DC plan finances rose even in unfavorable equity market periods, due to the continued interest of participants in equity markets.

While smoothing can take place in DB plans, investment variability directly affects individual account balances in DC plans. Such changes do not directly impact the plan sponsor, but poor investment results can harm morale and may even cause employees to delay retirement (Even and Macpherson, this volume). When employees are dissatisfied with benefits,

this can also increase turnover. Some DC plans are organized as employee stock ownership plans, and in other cases, the employer match in a 401(k) plan may be entirely in company stock. It is also the case that employee contributions are sometimes automatically invested in company stock, though in many instances stock may be one of several investment options. Table 5 shows that plans offering company stock tend to have participants allocate somewhat more of their assets in equity, on average, than plans not permitting company stock.

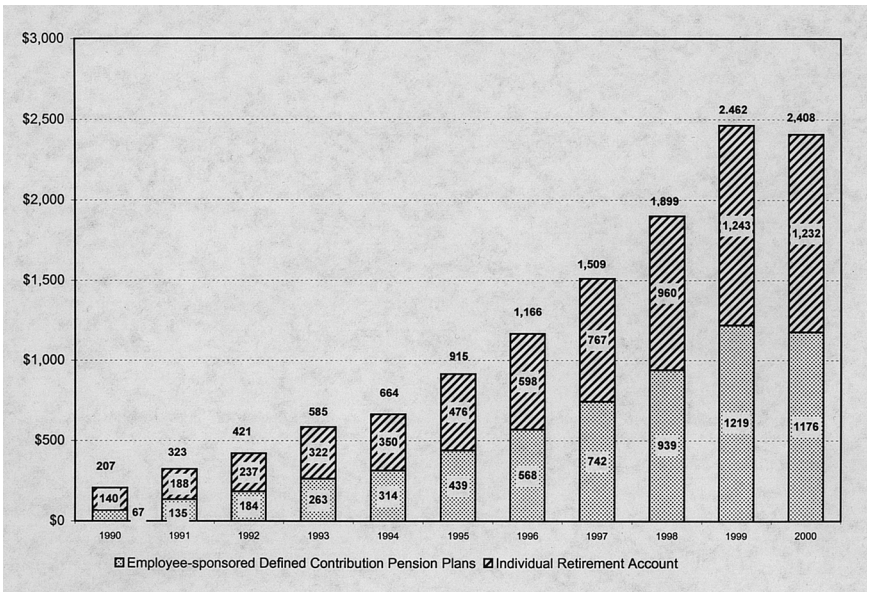

Figure 2. Mutual fund retirement assets, 1990–2000 ($ billions). Source: Investment Company Institute. Components may not add to totals because of rounding.

Table 5. Average Asset Allocation by Investment Options (1999)

Plans	*Equity funds*	*Company stock*	*Balanced funds*	*Bond funds*	*Money funds*	*GICs*[a]
	(percentage of account balances)					
All plans	53.4	19.1	6.7	4.6	4	10.5
Plans without company stock or GICs	71.1	na	9.7	9.0	7.7	na
Plans with GICs[a]	62.3	na	10.6	3.7	3.9	16.8
Plans with company stock	44.5	36.3	3.9	6.7	5.5	na
Plans with company stock and GICs[a]	47.9	23.9	5.5	1.8	1.6	18.7

Source: Derived from Holden and VanDerhei (2001).
[a] Guaranteed investment contracts.

One measure of the success of a DC plan is the plan's ability to deliver enough money to ensure that participants can afford to retire. Yet many plan sponsors do not focus on this outcome, preferring instead to offer participants the opportunity to save more and diversity investment portfolios. Typically, employers do not investigate actual account balances and savings rates, nor do they project them to retirement. Larger employers typically offer a combination of DB and DC plans, and while they may predict expected DB benefits, they are less likely to look at projected savings in DC plans. It is not uncommon for companies to presume that benefits will be adequate, if employees contribute the maximum they are eligible to receive their company match. Midsized employers in particular tend not to study these issues in much depth.

Going forward, however, the focus may become one of greater attention to retirement. In this case, plan sponsors will be required to ask whether employees are saving enough money for retirement, whether the available investment options provide an adequate range of choice, and whether employees appear to make reasonable asset allocation decisions. The implications of investment variability may become very different as well. For companies that offer both a DB and DC plan, it may be easier to manage expectations than for those that offer only DCs. In the DC-only case, employers might elect to redesign their basic plans, the investment options offered, and/or the participant education program (Wray 2001).

In considering these issues, it is important to remember that nearly all DC accumulations tend to be paid out as lump sums, and an increasing number of DB plans offer lump sums as well (Mitchell this volume). In contrast to the life annuity payout form, lump sums expose retirees to a wide range of risks including the possibility of outliving assets, investment losses, unexpected medical costs, cost of care due to frailty, loss of a spouse, and loss of functionality (Rappaport 2000).

How Market Volatility Affects Older Workers

People reaching retirement in the United States today have widely different levels of wealth, as well as different resources and levels of income. For instance, the poorest two quintiles of the elderly received more than 80 percent of income from Social Security, and had a net worth excluding home equity of under $21,000 (in 1996; Friedland 1999). Poor equity markets would therefore have little effect on this group. On the other hand, this group is also the most likely to need employment in later life, due to economic reasons. If fewer jobs are available, or if pay is lower, this group will be hardest hit. At the top end of the economic spectrum are older persons having substantial wealth. These people have considerable financial investments, some of which are equities, and hence they will be directly affected by poor market performance. For this group, some of the impact

of a decline in investment values will also be felt via reductions in estates or bequests, rather than through cuts in living standards during retirement. While many in this group will have adequate resources for a comfortable retirement, they may still feel vulnerable to economic volatility.

In the middle of the distribution of well-being are older persons who depend on diverse income sources and have middling financial assets. Some have DB pension plans, and for them, market fluctuations such as those experienced in the recent past will likely have only a modest effect. In contrast, retirees having only a DC plan may be hurt when the market sinks. Those holding a riskier portfolio, which loses value, may need to postpone retirement or return to work, and/or cut living standards.

Table 2 reported DC plan asset allocations for those plans that included company stock as an investment option. In Table 6 we depict average asset allocation by age for plans with and without company stock. For employees in their 60s, 44 percent of 401(k) account balances are invested in equity funds, 16 percent in company stock and 7 percent in balanced funds (Holden and VanDerhei 2001). If we assume balanced funds are half stock, this accounts for a total 63 percent of plan assets in equities for employees in their 60s; across participants of all ages, the proportion in equities is 76 percent. To the extent that DC plans represent a significant component of retirement assets, equity returns are a major concern.

Retiree Health Issues

Somewhat distinct issues arise when calculating retiree health plan costs. One reason is that most such plans are operated on a pay-as-you-go basis; that is, annual cash contributions are set to cover each year's benefit payouts. For purposes of the profit and loss statement, these benefit plans are treated like pensions, and as such, they are subject to special accounting rules. These rules require that the sponsoring company calculate a balance sheet liability representing the discounted present value of benefits for retirees, as well as for active employees based on service to date. While equity markets do not directly influence the costs of such pay-as-you-go plans, the concern is that health care costs have risen quite rapidly recently. Figure 3 shows total medical cost trends over the period 1990–2000. Per capita retiree health care costs increased in 1999 by 10.7 percent for retirees not yet eligible for Medicare, and 17 percent for retirees who were Medicare eligible (Mercer 2001). Prescription drug costs are a major factor in the costs for the Medicare eligible retirees.

In companies where both pension and retiree health costs are rising simultaneously, management will be forced to reassess options for bringing these retiree health costs under control. These include boosting retiree contributions for retiree health insurance, tightening plan eligibility, and modifying benefits so as to reduce costs. They might also involve rearranging

TABLE 6. Average Asset Allocation in 401(k) Plans for Age (1999)

Age cohort	*Equity funds*	*Balanced funds*	*Bond funds*	*Money funds*	*GICs*[a]	*Company stock*	*Other stable value funds*	*Other*	*Unknown*	*Total*
	(percentage of account balances)									
20s	63.4%	7.3%	3.8%	3.9%	3.8%	16.4%	0.3%	0.7%	0.4%	100.0%
30s	60.6	6.7	3.6	3.4	4.9	19.5	0.3	0.7	0.3	100.0
40s	55.9	6.7	3.9	3.8	7.9	20.4	0.4	0.8	0.3	100.0
50s	51.7	6.7	4.7	4.0	11.6	19.4	0.9	0.8	0.4	100.0
60s	44.2	6.7	6.8	4.9	19.2	15.6	1.7	0.7	0.3	100.0
All	53.4	6.7	4.6	4.0	10.5	19.1	0.7	0.8	0.3	100.0

Source: Derived from Holden and VanDerhei (2001).

[a] Guaranteed investment contracts.

the pension package to shift some benefit costs to employees, so as to increase workers' incentives to save for retirement.

Conclusions

There is considerable uncertainty as to how long and how deep this economic downturn will be. Retirement plan sponsors, employees, and retirees are coping with a combination of difficult equity markets, lower interest rates, and uncertain job market conditions. Under such circumstances, plan sponsors may respond by using permitted smoothing methods to reduce the impact on their financial statements, and by careful selection of actuarial assumptions within acceptable parameters. In the short to medium term, investment strategies will also be reviewed, although not necessarily changed. DC plan sponsors are being called on to increase communication to plan participants about market conditions, helping them put market movements in historical perspective. Increased oversight of fund choices may also be expected.

Long-term responses will likely be more varied. Cost pressures can force or encourage some plan sponsors to terminate DB plans, continuing a long-term trend in the United States. Other employers will review plan design, seeking a greater degree of risk management. This is consistent with the overall trend in retirement plans during the last decade that has transferred risk from employers to employees. Employers have terminated or frozen traditional DB pension plans, replaced them with cash balance plans, 401(k) pensions, and other DC arrangements. New firms offer no retirement benefits, or DC plans alone. Companies have increasingly relied

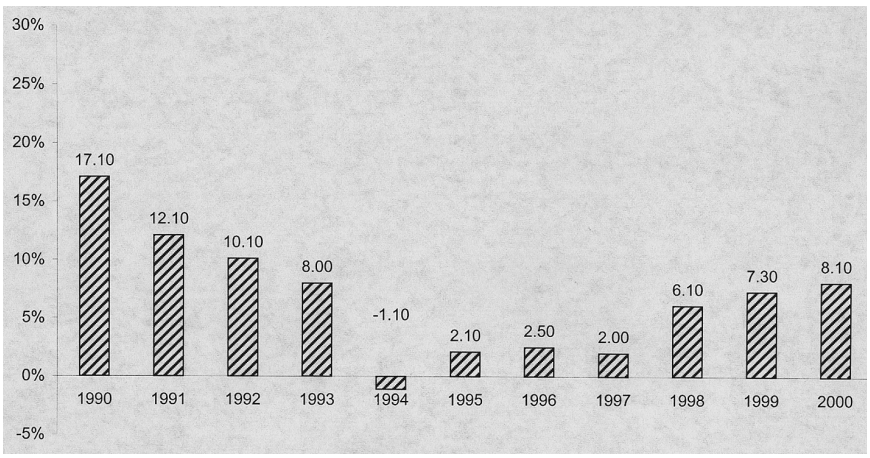

Figure 3. Trends in medical care costs over time. Source: Merck Incorporated (2000).

on their own stock as a savings and retirement vehicle, and employer subsidies for retiree medical benefits have been reduced or eliminated.

For the most part, employees have accepted this trend toward risk transfer. One reason is likely the buoyant equity market over the last two decades. Many people may believe that their retirement savings accounts (and other assets) were a sufficient cushion against such risks. But if equity markets stay depressed, employer and employee assumptions about retirement security are due for a fundamental reevaluation. This will first occur at companies that traditionally have emphasized stock purchase through ESOPs, broad-based stock option plans, and by using stock to match employees' 401(k) contributions. It will be sharpest when firms experience a sharp and prolonged downturn in the value of that stock. Of course, many of these companies also suffer from other problems (including survival), so that retirement plan issues may be postponed. Should these firms then be acquired, the new owner must address such issues. If they are not acquired, they often lack financial resources sufficient to make any substantive improvements in benefit offerings. Such companies may experience greater turnover, as their employees seek better venues in which to accumulate wealth for retirement.

For other companies, however, the problems will be less obvious and will not seem to require such immediate action. But a long-term recession will nevertheless challenge many peoples' fundamental assumptions. Plan sponsors have assumed double-digit investment returns will continue. Likewise, many employees and retirees anticipate that the high returns of the last two decades will persist. If expectations are not met, plan sponsors may need to modify their retirement programs, and baby boomers will either have to retire later, consume less, or both. Some retirees not currently working may have to return to work, as resources dwindle.

Business cycles have long been part of the pension planning environment. Yet severe downturns challenge thinking, if people and organizations have forgotten that such downturns can and do occur. In the past, DB plan sponsors generally took into account business cycle patterns when they managed pension plans; such views are less prevalent today. In a DC environment, the impact of equity market shocks is directly absorbed by participants. As the environment increasingly moves to one where participants bear risk, it is important that they learn to plan better for economic shocks.

Notes

1. Different methods can be used to value both assets and liabilities, so that a plan might have an unfunded liability according to one calculation but a surplus in another; see McGill et al. (1996).

2. The impact of assumptions is also greater today than when ERISA was enacted in 1974. Federal rule changes have imposed stricter limits on plan funding, restricting well-funded plans from making deductible contributions, and poorly funded

plans must now make extra contributions to catch up faster. Even the definition of funding has changed, so that market fluctuations can now have a more dramatic impact on plan funding. Some firms are also holding higher equity allocations in their pension plans and hence will be more vulnerable to changes in equity prices.

References

Even, William E. and David A. Macpherson. This volume. "Benefits and Productivity."

Friedland, Robert B. 1999. *Demography Is Not Destiny.* Washington, D.C.: National Academy on Aging Society.

Holden, Sarah and Jack L. VanDerhei. 2001. "401(k) Plan Asset Allocation, Account Balances, and Loan Activity in 2000." EBRI Issue Brief 239. Washington, D.C.: Employee Benefit Research Institute.

Investment Company Institute (ICI). 2001. *Mutual Funds and the Retirement Market in 2000.* Investment Company Institute Research in Brief 10, 2. Washington, D.C.: Investment Company Institute.

Lofgren, Eric P., Steven A. Nyce, and Sylvester J. Schieber. This volume. "Designing Total Reward Programs for Tight Labor Markets."

McGill, Dan M., Kyle N. Brown, John J. Haley, and Sylvester J. Schieber. 1996. *Fundamentals of Private Pensions.* 7th ed. Philadelphia: University of Pennsylvania Press.

Mercer, Incorporated. 1999. *Managing Multinational Retirement Programs.* Survey Report. New York: William M. Mercer.

———. 2000. *The Mercer/Foster Higgins National Survey of Employer Sponsored Health Plans.* New York: William M. Mercer.

Mitchell, Olivia S. with Erica L. Dykes. This volume. "New Trends in Pension Benefit and Retirement Provisions."

National Center for Employee Ownership (NCEO). 2001. "ESOPs, Stock Options, and 401(k) Plans Now Control 12.8% of Corporate Equity." NCEO Library <www.nceo.org>.

Pension Benefit Guaranty Corporation (PBGC). 1999. *Pension Insurance Data Book.* Washington, D.C.: Pension Benefit Guaranty Corporation.

Rappaport, Anna M. 2000. *Retirement Needs: The Perspective of the Individual.* Retirement Needs Framework Monograph. Schaumburg, Ill.: Society of Actuaries.

Riche, Martha Fransworth. This volume. "The Demographics of Tomorrow's Workplace."

Ryan, Ronald J. 2000. *2000: Worst Year in Pension History.* New York: <www.ryanlabs.com>.

U.S. Department of Labor, Bureau of Labor Statistics (BLS). 2000. "Employment Situation." <www.bls.gov>.

Value Line Investment Survey. 2001. *Selection and Opinion.* New York: Value Line Publishing: 4317. April 13.

Wall Street Journal. 2001. <www.wsj.com>. Historical Information. New York: Dow Jones & Company.

Wray, David. 2001. *Current Trends in Profit Sharing and 401(k) Plans.* Chicago: Profit Sharing Council.