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Chapter 1

Introduction: Assessing the Challenges to the Pension System

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A growing fraction of the U.S. population is beginning to contemplate its future in retirement with alarm. In this volume we take a critical look at how effectively private and public pensions will contribute to the future of retirement well-being, make careful note of where they have succeeded and failed over the last several decades, and highlight emerging and promising pension innovations. In addition, we examine public policy developments affecting pensions and point to issues in the pension policy arena likely to be of growing concern over the next decade.

Several issues frame the discussion. In the United States, lack of productivity growth combined with resistance to higher taxes is forcing recognition of the Social Security system's pending insolvency (along with that of other government-provided retirement benefits). In turn, this is focusing renewed attention on company pensions, with experts asking how to position these employment-based benefit plans more effectively to meet the challenges of the next several decades. Critical reforms must soon be enacted with respect to how pensions are offered, managed, and regulated in the United States in order to build on their strengths and rectify their weaknesses.

In recent years there has also been a tremendous change in the pension environment, with new pensions being created primarily of the defined contribution or 401(k) type. Defined benefit plans, seen in the past as the right plan for the majority of the workforce, are losing ground and losing popularity. Whether this shift is desirable is a matter of great debate: some participants as well as plan sponsors express concern that defined contribution plans will undermine retirement income security. By contrast, other analysts see defined contribution plans as ideally suited

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to the complex investment and personal financial concerns driving the modern labor market. From this perspective, defined contribution plans offer the appeal of individually determined retirement savings levels, individually directed investment allocations, and, at retirement, individually tailored benefit payouts. What to expect from each plan type in the future is a theme running through this volume.

In this introductory chapter, we first offer a discussion of why some employers offer pensions and why pensions appeal to some employees, and focus on the important distinctions between defined benefit and defined contribution plans. Second, we review recent pension developments in the United States, a perspective which is essential in assessing some of the emerging economic, regulatory, and social issues confronting those seeking to enhance retirement saving in this country. The discussion emphasizes ways in which the pension system has greatly contributed to the increased retirement security of the elderly, along with an assessment of where upcoming challenges lie. Finally, we offer an interpretive discussion of the book's remaining sections, in which we outline strengths and weaknesses of the pension system to meet the challenges of the twenty-first century.

An Overview of the United States Pension System¹

In the United States, employer-sponsored pensions are best understood as long-term compensation arrangements. Each year the employee is with a company offering a pension, he or she accrues an additional right to an eventual retirement income benefit, typically a function of lifetime pay, age, and/or years of service. The precise form of the pension benefit depends on the type of plan offered by the firm. Experts usually distinguish between two plan types, the defined benefit (DB) and the defined contribution (DC) pension. In a DB plan, the sponsoring employer specifies a formula for retirement income based on the worker's pay and service, as well as the age at retirement. In a DC plan, the company and often the employee make contributions to the plan, often a fraction of pay. Benefits at retirement then depend on the total contribution the worker has accumulated into the plan by retirement age.

There has been a substantial change in the mix of defined contribution and defined benefit plans over time in the United States. Table 1 reveals that the number of defined contribution plans has grown from 66 percent to 85 percent of all plans since the mid-1970s. Defined benefit plans now represent a mere 15 percent of the plan universe, down from 33 percent in 1975. Since DB plans tend to be larger than DC plans, the total number of DB plan participants has dropped more modestly, but the decline in relative share is still startling. Over the period 1975–

TABLE 1 Recent Trends in Private Pension Plans

	Year			
	1975	1985	1990	1991
<i>No. of plans:</i>				
Total (100%)	311,094	632,135	712,308	699,294
DB	33%	27%	16%	15%
DC	66%	73%	84%	85%
<i>No. of participants (thousands):</i>				
Total (100%)	44,511	74,665	76,924	77,662
DB	75%	49%	51%	50%
DC	25%	51%	49%	50%
<i>US\$ assets (millions):</i>				
Total (100%)	259,963	1,252,739	1,674,139	1,936,271
DB	72%	66%	57%	57%
DC	28%	33%	43%	43%

Source: U.S. DOL (1995), pp. 60, 64, 70.

1991 in the United States, the fraction of pension participants covered by DC plans doubled—to half the covered population—with participants with DB plans accounting for only half the covered group, down from three-quarters in the sixteen-year period. Perhaps the most striking pattern in Table 1 is the massive change in plan assets over this fairly short time horizon. Defined contribution plans in 1975 held only about one-quarter of the total pension asset pool, and now hold more than 40 percent.

Why have pension patterns changed so substantially over time? Why do some employers offer, and some employees participate in, company pensions, while others do not? One reason some employers offer a pension is that they feel they assist in labor recruitment and retention. For example, a company having a pension plan might attract employees willing to invest in their jobs as well as in themselves. Providing matches to workers' pension contributions, available only after a vesting period, would appeal to (and help retain) employees interested in remaining with the company for a relatively long term. A pension can also help induce employees to exert greater effort, take fewer days away from work, and in general be more motivated. At the end of the work life, pensions help ease the retirement process, providing incentives for older employees to retire after a particular age or number of years of service. On the whole, then, pensions can be a key element in a carefully thought out human resource policy, an element used by companies needing a

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long-term stable workforce. Such employers will be more likely to offer pensions and will also tailor their plan features to meet compensation policy goals. Conversely, firms pursuing a low-wage employment strategy would be unlikely to offer a pension at all, and, if they did, it would tend to be a less expensive plan that did not necessarily reward long-term firm attachment.

While this explanation for pensions emphasizes how employers gain from offering a pension, there are clearly several reasons some employees desire company-sponsored pensions as well. Perhaps the most obvious rationale is that company pensions hold tax-favored status if they meet certain nondiscrimination requirements, rules that require pension savings to be spread across a wide cross section of a company's workforce. The tax protection afforded contributions makes it appealing for middle and upper tax bracket employees to save for retirement in a tax-qualified plan. As many have pointed out, however, it has become increasingly costly and difficult to meet these legal nondiscrimination requirements in recent years, making the tax deferral motive for pensions somewhat less valuable than years ago.

Other factors making pensions appealing to employees include the fact that company pensions offer relatively low cost access to investment markets because of scale economies and can provide access to group risk pools, thus avoiding costly individually purchased annuities. In addition, analysts emphasizing the psychological aspects of pensions note a strong element of self-control in company pensions, whereby the automatic deferral of pay (either via salary reduction or employer contributions) makes it easier for workers to save for retirement. In general, workers who desire pensions are more likely to be relatively highly paid and expect to be long-lived; conversely, those unlikely to want a pension, and who would probably not participate in a pension plan if it were offered, are likely to be lower paid employees not planning on long-term attachment to that company, as well as those who do not value saving for retirement, particularly in a group format. Moreover, if an employer's finances permit subsidization of employee medical benefits but not both medical and pension benefits, workers (particularly younger ones) are less likely to favor pensions.

Having pointed out that pensions are seen as retirement insurance and more, the question arises as to whether defined benefit or defined contribution plans meet these needs more effectively. This is not an easy question to answer, since participants and plan sponsors assume different types of risk in each plan. For instance, DC plan participants increasingly can decide, as individual workers, how much money will be deposited into the plan and how these pension contributions will be invested. In addition, many 401(k) plans allow loans and lump-sum cash-

outs, making the money more accessible than under other plan types. These features imply that the task of forecasting retirement income needs and investment risks as well as returns increasingly falls on individual employees rather than on the employer. In other words, a typical DC plan imposes on participants the uncertainty about eventual benefits due to inability to forecast lifetime earnings and capital market risk. Offsetting these risks is the fact that participants seem to like the opportunity to handle their own pension investments. Finally, DC plans often impose longevity risk on the plan member, since a majority of DC plans allow retirees to take their accumulations in the form of a lump sum. In this event, the retiree confronts the possibility of outliving his or her pension assets, a risk that would be handled quite differently had the funds been converted to a group annuity.

Many but not all of these risks are handled differently in a defined benefit plan. In conventional DB pensions, the employee accrues a right to an annuity payable at retirement based on age, service, and lifetime earnings. Often these pension plans provide a minimum benefit for all workers attaining a minimum length of service, so plan participants are somewhat protected against sharp drops in earnings (particularly at the low end of the pay scale). Also, DB plans tend to provide greater protection against inflation since their benefit formulas are usually related to salary increases over the course of the worker's career with the firm.

Many DB plans also have a degree of disability protection, paying workers with health problems income continuation if they cannot work. And as already mentioned, DB plans tend to require that pension payments take the form of an annuity, providing risk pooling within the employment group against longevity. Finally, the company sponsoring a DB plan is responsible for funding the promised level of retirement benefits. If the plan is underfunded (i.e., the pension plan's liabilities exceed pension assets), the sponsoring firm is obligated to pay pension benefits just as it must repay other long-term debt. As a result, workers in a DB plan bear less general capital market risk, having shifted some of it to the pension fund and implicitly to the sponsoring company. In turn, they are instead exposed to the risk of possible company bankruptcy when the plan is underfunded. In the United States and many other nations, the government-run pension guarantee system further spreads this type of underfunding risk across all DB sponsors.

In sum, there are several root explanations for the rapid changes experienced in the pension environment over the last several years. The fact that DC plans doubled during the 1980s and multiplied again during the 1990s can partially be explained by the fact that many covered workers now have both plan types. In fact, about half of all pension participants now have a secondary DC plan on top of a DB pension. Others are

starting DC plans afresh, producing more than 10,000 new plans reported to the IRS per year.

Successes and Failures of the United States Pension System²

Many observers would judge the United States retirement system to be one of great achievement, with employer-sponsored pensions playing a key role. Of course Social Security benefits have also contributed to the elderly's rising economic status, but today an increasing fraction of the over-65 receive a pension, comprising a substantial portion of retirement income. In addition, most employer-sponsored pension plans are well funded, and the benefits earned are usually deemed secure, in part because of good funding and government insurance through the Pension Benefit Guaranty Corporation. In addition, large pension plans have been able to adopt sophisticated asset management techniques, relying on modern portfolio theory in the development and implementation of investment programs. Consequently, pension plan investment results have been excellent in many defined benefit plans over the last decades, in private as well as public sector plans (Bodie, Mitchell, and Turner 1996).

In other areas, success has been more mixed and there are worrisome signs on the horizon. Small employers have been particularly hard hit by competitive labor and product markets, and the complexity of pension regulation has driven many smaller companies out of the defined benefit pension market. There have also been problems with multi-employer plans, or defined benefit plans covering employer and union groups in certain sectors such as trucking and construction. In the past, employers joining such plans anticipated that their pension commitment would be met in full by paying assessed contribution amounts, but the Multi-Employer Amendments Act recently imposed "withdrawal liabilities," levying on participating firms a share of the plan's unfunded liabilities if they withdraw. This change in contractual pension obligations has decreased firms' interest in entering new multi-employer arrangements in the near term. Additionally, though private plans are well funded in general, some are underfunded and becoming increasingly so. This situation arises in part because negotiated pensions are regularly amended as benefit increases are bargained but the pension can often fall behind in funding since these increases may not be paid for until adopted.

Furthermore, on a broader level, the failure of pension coverage to rise in the workforce as a whole is of concern to those looking ahead to the baby boomers' retirement. Research shows that this coverage drop resulted from changes in the employer mix, decreases in firm size as well

as unionization, and the national trend toward falling real wages, particularly for low-skilled employees.

Developments in the arena of defined contribution plans also indicate mixed success, depending on plan type and structure. Many employees are now offered the opportunity to invest their 401(k) funds in a wide range of assets, including company stock as one of the options. This pattern has both opportunities and pitfalls, since company stock has performed well in some cases but poorly in others, reminding participants too late of the need for diversification. Whether participants are able to make sensible asset allocation decisions is a matter requiring further study, and important new research is presented in this volume on this point.

Public sector pension plans are another area of research and some policy concern. In contrast to private pensions, subject to the Employee Retirement Income Security Act (ERISA) since 1974, there are no public sector rules requiring national accounting, funding, and reporting standards. While most public plans appear to be managed rather well and are close to fully funded, others are clearly not, the most notorious probably being the virtually insolvent Washington, DC plan. Indeed, the 1996 report of the Social Security Advisory Council proposed extending many ERISA regulatory requirements to the public sector to strengthen the pension plans covering one of five workers in the land.

Finally, there are problems with the United States retirement system at the national level, problems stemming from the fact that the overall saving rate is troublingly low and has been for some time. This is in part a result of the fact that there is neither a national retirement policy nor any coherent legislative or economic framework shaping pension legislation and regulation. As a result, pension laws are changed frequently—on average once a year between 1985 and 1995—and these changes have been driven more by revenue needs than by logic. The many law changes have also been combined with delays in the issuance of interpretive regulations helping plan sponsors implement the laws, making the environment for pension design one of substantial uncertainty.

Research Developments in the Pension Arena

In examining the challenges faced by the pension system entering the new millennium, this volume begins with a focus on specific pension plan issues and then discusses broader environmental and policy issues. Examining first defined benefit plans, Marc Twinney asks whether larger employers are reevaluating, and perhaps considering dropping, their long-standing commitment to defined benefit plans as the pension of choice. Twinney surveys twenty benefits managers at large United States

manufacturing companies and, based on his analysis, concludes that there has been relatively little change in their benefit and pension perspective. He also identifies several corporate policies toward provision of retirement income, noting that recent policy developments have begun to worry the corporate sector. In particular, he places great weight on recent and proposed changes in Social Security, insofar as they will affect company pensions. For example, defined benefit plans are required to treat age 65 as the normal retirement age, though for Social Security purposes this age is being raised to 67 over the next several years. Twiney's conclusion, that there needs to be a coherent national retirement policy, is one that many will applaud.

A discussion by Anna Rappaport, Michael Young, Christopher Levell, and Brad Blalock is of keen interest to those focusing on new developments in the defined benefit pension arena. They write with great expertise about the cash balance pension, a new institutional form that maintains some of the advantages of the defined benefit pension while including an accumulation aspect employees will see as akin to the defined contribution pension. Since these plans are rather new, the authors offer a unique description of the novel format and compare this plan type with other alternatives.

Turning next to developments in the defined contribution plan arena, we have collected three unique and fascinating studies of these popular plans, each of which asks and answers questions about participants' asset allocation strategies. Using data on a large United States manufacturing firm, Jack L. Vanderhei and Vickie Bajtelsmit study asset allocation of pension participants using a variety of empirical and multivariate models. Their contribution is to develop and analyze a unique new data set on managerial employees in a large firm to ask how people allocate their pension assets when they have some choice in a self-directed DC/401(k) plan. In particular, the chapter assesses how account allocations vary with socioeconomic factors, including age, sex, pay level, and tenure. The authors also offer expert judgment regarding the wisdom with which plan participants appear to be investing their self-directed accounts. After concluding that few older workers hold very much of their retirement account in equities, they examine various explanations about what this implies for retirement well-being. The authors also supply new evidence on the extent to which plan participants take out loans, withdraw cash from their plans, and buy employer stock, exploiting the uniqueness of this company-level data set.

Expanding on the question of how defined contribution participants allocate their investments, Sylvester J. Schieber and Gordon Goodfellow explore a rich cross-company data file on about 36,000 participants in 24 nationwide DC plans. Examining how participants hold their retirement

money, the authors find that the older the participant, the higher the pension balance; most DC assets are held in GICs (guaranteed investment contracts), and the fraction of assets held in GICs is low among the young but rises rapidly with age. A third analysis of defined contribution participants' behavior takes up a very different question. Richard Hinz, David McCarthy, and John Turner ask whether women appear to be more conservative investors than men, and find some evidence in this direction. Taken together, these studies using employer-side pension data offer some of the first microeconomic insights into rapidly growing self-directed pension accounts, about which very little is known to date in research and practical circles.

Turning to emerging pension policy issues, the focus expands to cover a wider range of topics. Mark Warshawsky investigates how defined benefit pensions are drawing on a pair of publicly available data sets as well as a new Internal Revenue Service study on the same issue. The author reviews the evolution of legal regulations on funding, beginning with ERISA and ending with the 1994 Retirement Protection Act, and summarizes accounting standards regarding funding, which often conflict with Internal Revenue Service regulations. He concludes that defined benefit pension plan funding worsened in the last several years, despite the apparent goal of policy to increase funding.

Moving to a different and also controversial pension topic, Robert Monks describes some changes that have recently rocked pension trustee boards under the rubric of corporate governance. His thesis is that, in both the public and the private sectors, pension trustees now hold such a substantial portion of publicly traded company equity that the trustees tend to become involved in managing these firms—willingly at times, but unwillingly at others. Monks reviews changes pension managers have begun to demand (and receive), including relaxation of rules for shareholder communications, report cards, proxy voting, confidential board elections, and related matters.

Aspects of pension decisionmaking in the public sector are taken up in turn in separate chapters by Robert Lang and by Ping-Lung Hsin with Olivia Mitchell. Lang first describes the financial risks confronted by participants and sponsors of state and local pension funds. He then goes on to describe pension obligation bonds, a unique method of financing recently undertaken by some state and local governments to meet these risks. Taking a different tack, Hsin and Mitchell focus on pension plan managerial efficiency, and challenges to it, in the public sector. Reducing the high costs of public pensions without cutting the quality of retirement services provided by these plans is an important issue of public concern everywhere. Analysis of a large number of United States state and local pension plans reveals that, on average, administrative expen-

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ditures per participant are high but not apparently higher than in private pension plans. Evidently public pension plans could benefit from scale economies by merging and coalescing into larger pension pools. Additionally, the study shows that pension administrative costs could be substantially reduced if the systems were operated more efficiently. Factors associated with greater efficiency are identified, and include requirements that administrative budgets be authorized by a group other than the pension board.

The final segment of this volume turns to the future, where several different specialists look ahead to directions for the pension system. Constance Citro and Eric Hanushek summarize the work of a National Academy of Sciences panel conducting an overview of retirement income modeling efforts and call for the development of more open, and more policy-relevant, pension models which are integrated with other economic and policy concerns. Social Security policy also has a potent effect on retirement income and on the role that employer pensions must fill in ensuring retirement security. The final set of chapters in the volume therefore includes two pieces on Social Security, one by economist Edward Gramlich and the other by U.S. Representative John Porter (R-Ill.). In the process of guiding debate on the Social Security Advisory Council, Gramlich has explored many of the policy options available to resolve the system's forecasted insolvency. In his chapter, he outlines the choices, thereby making all the more clear the role of employment-based pensions in response to system changes. Porter's work takes a different tack, that of converting a portion of the Social Security payroll tax to individual pension accounts. How this would alter the role of public versus private sectors in providing retirement income is a subject that commands much attention in this chapter, and will certainly generate debate in years ahead.

Notes

1. This discussion draws on Bodie and Mitchell (1996), Gustman and Mitchell (1992), and Gustman, Mitchell, and Steinmeier (1995).
2. This discussion benefited from the input and advice of Anna Rappaport, to whom we are most grateful.

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