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Introduction

Even before the collapse of Enron, the protracted bear market, and the mutual fund scandals, questions about how to provide people with an adequate retirement income were high on the national policy agenda. The number of Americans over age sixty-five will double by 2030. With a life expectancy at age sixty-five of roughly twenty years, these individuals will spend more time in retirement than individuals before them. To ensure that today's workers will have a secure retirement, we need to understand what sources of income retirees have available now and what they are likely to have in the future.

The public debate about retirement income has focused on the future of Social Security, the basic tier in the U.S. retirement system. The second tier, employer-sponsored pensions, has received considerably less attention. These programs, however, are a crucial source of retirement income for middle-income families. This book explores the fastest-growing type of employer-sponsored pension, namely 401(k) plans. These plans merit serious attention in their own right, as 58 percent of households with pension coverage rely solely on 401(k)s and similar plans to supplement Social Security.[1] Yet the median combined balance of a 401(k) and an individid-

1. According to the Federal Reserve Board's *2001 Survey of Consumer Finances,* 58 percent of households in 2001 covered by a pension had only a defined contri-

ual retirement account (IRA) for household heads in their late forties and early fifties is only $37,000. In addition, some troublesome features of 401(k)s and defined contribution plans generally, such as lump-sum distributions upon job change and at retirement, are increasingly common in the rest of the pension system.

The emergence of 401(k) plans is a phenomenon of the last twenty or so years.[2] In 1980 most workers covered by a pension had a defined benefit plan. These plans typically provide employees lifelong monthly retirement benefits based on years of service and final salary. For employees who remain with one firm throughout their working lives, defined benefit plans can offer a predictable and substantial stream of monthly benefits. Mobile employees, however, forfeit some pension income when they change employers.

From the employer's perspective, defined benefit plans help manage the work force by encouraging longer tenure and efficient retirement.[3] Since pension benefits based on final earnings increase rapidly as job tenures lengthen, these plans motivate workers to remain with the firm. Defined benefit plans also encourage workers to retire when their productivity begins to decline.[4] But for employers, these plans also have two disadvantages: exposure to financial market risk and lack of employee turnover even when desired.

For a variety of reasons, the nature of pension coverage has changed. It has become a 401(k) world. The 401(k) plan is essentially a savings account. The employee and, most often, the employer contribute a percentage of earnings into the account. These contributions are invested, generally at the direction of the employee, mostly in mutual funds of stocks and bonds. When the worker retires, the balance in the account determines the retirement benefit, which is almost always paid in a lump sum.

It is easy to understand the popularity of 401(k) plans. They are portable, which means that mobile workers can take their balances with them. Employ-

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bution plan, 23 percent had both a defined benefit and a defined contribution plan, and 19 percent had only a defined benefit plan. The comparable numbers for individuals in 1998 derived from form 5500, which companies are required to file with the Department of Labor, are 55 percent, 31 percent, and 14 percent. Form 5500 also indicates that 74 percent of those covered by a defined contribution plan were in a 401(k) plan. If this percentage held true in 2001 and applied to households as well as individuals, it would imply that 43 percent (58 × .74) of households with pensions were covered by only a 401(k) plan.

2. The Revenue Act of 1978 included provisions that allowed explicit salary reduction, a key feature of 401(k) plans, but only after the IRS issued clarifying regulations in 1981 did the 401(k) become popular.

3. Lazear (1979, 1983).

4. Considerable work has been done to document the impact of incentives to retire in defined benefit plans: Samwick (1998); Stock and Wise (1990a, 1990b); Kotlikoff and Wise (1987, 1989); Fields and Mitchell (1984).

ees get statements several times a year, and many have daily access to pension benefit data through the World Wide Web, which makes their benefits seem more tangible. As the plans allow employees to choose investments that match their tolerance for risk, it also gives them a sense of control over their retirement funds. Rapidly rising account balances greatly enhanced the popularity of these plans during the stock market boom of the 1990s. With the sharp decline in the stock market that began in 2000, workers may have become somewhat less enthusiastic about investing their own retirement funds.

Employers also like 401(k)s. These plans are a tangible benefit, which employees appreciate. Employers can use 401(k) plans to attract workers who value saving and who, some economists argue, are presumably more conscientious and productive.[5] And employers' contributions are controllable and do not hinge on stock market and interest rate swings. This means that when the stock market plummets, the employee, not the employer, loses money. And when interest rates fall, rather than the employer paying more for an annuity, the employee realizes a lower retirement income. Moreover, 401(k) plans are fully funded by definition, eliminating the work and expense associated with funding requirements and pension insurance. Generally, they are also less costly for the employer to administer than defined benefit plans.[6]

In view of their appeal to both employees and employers, 401(k)s and similar defined contribution plans are now the dominant form of private pensions in the United States. Of those with pension coverage, 58 percent of households now rely exclusively on 401(k) or similar defined contribution plans; another 23 percent have a defined benefit plan in addition to a defined contribution plan; and only 19 percent rely solely on a defined benefit plan. The shift in pension coverage occurred primarily through the stagnation of defined benefit plans and the establishment of 401(k)s; defined benefit plans were rarely converted to 401(k)s. Many defined benefit plans are starting to

5. Ippolito (1998).

6. Of course, another factor is that in 401(k) plans the bulk of contributions come from employees rather than from employers, as is the case for defined benefit plans. The question is whether the shift in the party making the contribution actually represents a shift in burden. Economists would argue that employers decide on the total compensation they must pay their employees and divide that amount between cash wages and fringe benefits. Providing a pension benefit thus implies a cut in wages or a reduction in other benefits, and vice versa. If the economists are correct, similarly situated employees covered by 401(k) plans should have higher (precontribution) cash wages than those covered by defined benefit plans. In this case, the fact that the employee makes the payment does not imply an increased burden. The other hypothesis is that global competition has put downward pressure on wages in the United States and that employers have used the shift in coverage to 401(k) plans as a mechanism to slow wage growth. No empirical work has been done to sort out this issue. The discussion in this volume is based on the conventional economic view of a trade-off between pensions and cash wages.

look like 401(k)s, however, through conversions to cash balance plans or some other hybrid form. Although 401(k) and similar plans emerged only in 1981, they will determine the economic security of a significant portion of the baby boom generation. To set the stage for the discussion of 401(k) plans, the next two sections put 401(k)s in perspective by reviewing the evolution of private pension plans and the regulations that govern them.

The Origins of Section 401(k)

The Internal Revenue Code (IRC) treats employer-sponsored benefits more favorably than benefits that individual employees purchase on their own.[7] The rationale is that benefits provided by the employer will be broadly distributed, particularly to lower paid employees who are unlikely to respond to tax incentives. This treatment puts employers in a bind. On the one hand, providing the benefit to all employees lowers costs because of favorable tax treatment. On the other hand, universal provision means that benefits go to some employees who do not value them. Therefore, employers have an incentive to fit their compensation program to their employees' needs but to disguise employee choice in order to retain the tax advantage. (Giving employees choice risks running afoul of the doctrine of constructive receipt.)

If employees can opt for cash, the Internal Revenue Service (IRS) could say that they "constructively received" the cash, and the contribution to the plan would then be subject to tax. In the 1950s several employers offered employees a choice between receiving a year-end bonus and having the same amount deposited in a tax-favored plan. The IRS was asked to determine whether such an option affected a plan's tax status. In 1956 the IRS approved a profit-sharing plan that offered choice, thus indicating that elective contributions were not inconsistent with qualified plan status. Later rulings suggest that the IRS did not view constructive receipt as a problem in the 1956 case because the election of cash had to be made during the year before the actual amount of the bonus was known. This view, however, was somewhat at odds with the treatment of other arrangements. So tax experts were not surprised when the IRS, in 1972, proposed regulations to tax those amounts that employees could choose to receive in cash even if they were ultimately contributed to a plan.

Congress appeared supportive of the 1972 regulation. But in passing the Employee Retirement Income Security Act (ERISA) in 1974 it delayed its implementation for previously existing arrangements until January 1977 and

7. The following discussion is based on Halperin (1983); EBRI (2000).

then until January 1978. In considering the Revenue Act of 1978, the House voted to extend the freeze, implicitly allowing elective contributions. The U.S. Treasury Department, however, wanted a more permanent solution.

Section 401(k) of the IRC was the compromise. Section 401(k) says that if plans with elective contributions meet a special nondiscrimination test—so that excessive benefits do not go to the higher paid employees—then constructive receipt does not apply. The need for broad participation explains why matching contributions are a common feature of 401(k) plans. To ensure that the funds are retained until retirement, section 401(k) also prohibits distributions before age fifty-nine-and-a-half or separation from employment (including death and disability), except in the case of hardship.

The law went into effect in January 1980. In 1981 the IRS issued proposed regulations that sanctioned the use of employee salary reduction for retirement plan contributions. And the rest is history.

401(k) Plans in Perspective

Pension plans are large and complex institutions. They arise naturally from real business needs, bump along on their own for a while, falter here and there, and then require some government oversight and involvement to set them right. That certainly was the case with traditional defined benefit plans.

During the last quarter of the nineteenth century, the large, prosperous, and heavily regulated transportation industry, which employed many workers in hazardous jobs, pioneered the establishment of private plans. In 1875 American Express set up the first pension plan to provide disability benefits to workers with twenty years of service. In 1880 the Baltimore and Ohio Railroad, noted for its enlightened labor policies, organized a plan based on employee contributions. In 1900 the Pennsylvania Railroad established a plan financed by the employer, which served as a model for other railways. By the end of the 1920s the railway industry had extended pension coverage to 80 percent of its workers. In addition, most large banks, utility, mining, and petroleum companies, as well as a sprinkling of manufacturers, had formal plans. While large industrial employers were establishing pension plans, a small number of trade unions were instituting their own schemes for retirement benefits. By 1928 about 40 percent of union members belonged to unions that offered some form of old age and disability benefits.

The Great Depression had a profound effect on both the industrial and union plans. Many railways were operating in the red and did not have pension reserves to help pay benefits to their retired employees. Because so many people were involved, Congress passed the Railroad Retirement Act of 1935 to nationalize the much-stressed plans. Employees covered by other industry plans were often not so fortunate. As business activity declined, many companies could not meet both operating expenses and rising pension payments. In response they made substantial cutbacks, ranging from suspending the accumulation of pension credits to trimming or even terminating the benefits of retired employees. Union plans also were affected by high unemployment, which depleted union treasuries.

After the Great Depression, industry and labor had to recreate the pension system. Although World War II consumed many of the nation's resources that might have been directed toward improved provisions for old age, wartime wage controls provided some support for the expansion of private plans. The War Labor Board, which had set legal limitations on cash wages, attempted to relieve the pressure on management and labor by permitting employers to bid for workers by offering attractive fringe benefits. Pension benefits cost firms little in view of the wartime excess profits tax and the ability to deduct pension contributions.[8]

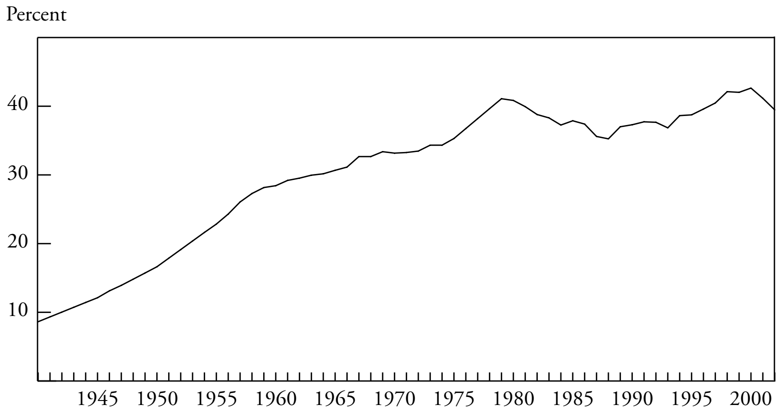
In the immediate postwar period, employees focused on cash wages to recover ground lost during the period of wartime wage stabilization. But in 1949 pension benefits became a major issue of labor negotiation because of increased employer resistance to further wage hikes, a weak economy, and the obvious inadequacy of Social Security, which averaged only $26 a month at the time. Labor's drive for pension benefits was aided when the Supreme Court confirmed the National Labor Relations Board's 1948 ruling that employers had a legal obligation to negotiate the terms of pension plans. The United Steelworkers of America and the United Automobile Workers then launched successful drives for pension benefits, and other unions soon followed.

The main expansion of today's private pension system, then, actually began during the 1950s. Although growth continued in the 1960s, it was due primarily to expansion of employment in firms that already had pension plans as opposed to the establishment of new plans. Pension coverage continued to expand until the end of the 1970s but has been virtually stagnant since then. Currently, less than half of the private sector work force participates in a pension plan (figure 1-1); a somewhat larger percentage has some coverage at some point in their lifetime. It is definitely better to have a pension than not to have one, regardless of the strengths and weaknesses of one type versus another.

As pensions became an important institution, workers began to rely on employer-provided benefits as a major source of retirement income. Govern-

8. Munnell (1982); Ghilarducci (1992).

Figure 1-1. *Private Sector Workers Covered by a Pension Plan, 1940–2002*



Source: Authors' calculations based on U.S. Bureau of Census, *Current Population Survey* (1978–2002); on Skolnik (1976), p. 4; and on Yohalem (1977), p. 27.

ment also had a stake in the pension system, because the favorable tax treatment accorded these plans reduces federal income tax revenue. Employer contributions to a pension plan are deductible as a business expense when made, investment income earned by pension funds is tax exempt, and the employee is not taxed until receipt of pension benefits.[9] As a result, employees pay significantly less tax on compensation received in the form of deferred pension benefits than in the form of cash wages. The cost of these favorable tax provisions is enormous. After the present value of future tax payments on benefits is deducted, the revenue loss to the Treasury Department is an estimated $172 billion for 2002.[10] This amounted to 20 percent of federal income tax revenues of $858 billion in that year and 42 percent of the $455 billion in payroll taxes collected to support the old age portion of Social Security.

The government's large tax expenditure on the employer-sponsored pension system requires that employees be treated fairly along a number of dimensions. As far back as the 1940s federal regulations insisted that tax-favored plans provide retirement benefits to the rank and file as well as to highly compensated employees. In the 1950s and 1960s it became clear that such plans had other serious problems. Some employers imposed such strin-

9. These provisions, which permit tax deferral on both contributions and the earnings on those contributions, are equivalent to exempting from taxation the earnings on the money that would have been invested after tax, assuming the employee remains in the same tax bracket.

10. http://w3.access.gpo.gov/usbudget/fy2004/pdf/spec.pdf.

gent vesting and participation standards that many workers reached retirement age only to discover that they failed to qualify for a pension because of a layoff or a merger. Even workers who satisfied their plan's requirements had no assurance that accumulated pension assets would be adequate to finance their benefits. A few pension plans were administered in a dishonest, incompetent, or irresponsible way. Managers of other plans engaged in forms of financial manipulation, such as concentrating investments in the stock of business affiliates, which—although not illegal—could jeopardize the value of the portfolio relative to a diversified portfolio.

Because of these unresolved problems, participants were often at the mercy of the sponsors. Employees covered by inadequately funded or mismanaged pension plans bore the risk of losing their pension benefits. The fate of workers in the South Bend, Indiana, automobile plant closed by Studebaker in 1964 is the best known example of substantial benefit loss. Inadequate funding left most of Studebaker's 8,500 employees with either reduced pensions or no pensions at all.[11] Repercussions from the Studebaker and similar incidents contributed to congressional interest in pension reform. After more than ten years of hearings and prolonged debate, Congress passed ERISA. Congress has not passed similar legislation for public employer plans.

ERISA's principal objective was to secure the rights of pension plan participants so that a greater proportion of covered workers would receive their accrued benefits. The legislation introduced participation and vesting standards to make it easier for workers to establish legal claims to benefits. Funding and fiduciary standards included in the law were to ensure that money would be available to pay the legal benefit claims. Despite the funding requirements, the possibility remained that some plans might terminate with inadequate assets. To protect plan participants against this contingency, ERISA also established the Pension Benefit Guaranty Corporation (PBGC), a mandatory insurance program that imposes premiums on defined benefit plans to insure workers against the loss of basic retirement benefits.

Most observers agree that ERISA has succeeded in meeting its stated objective of strengthening workers' claims on benefits. Participation and vesting standards enabled workers to establish a legal right to benefits after a

11. The distribution of Studebaker's $24 million of pension fund assets struck much of the public as extremely unfair. Munnell (1982); Sass (1997). The bulk ($21.5 million) went to pay the full benefits to 3,600 workers who were retired or eligible for retirement (age sixty with ten years of service). The remaining $2.5 million went to 4,080 workers who were at least forty years old with ten or more years of service. This payment equaled only 15 percent of the value of this group's accrued benefits. The final group—2,900 workers who were not vested—got nothing.

fixed time period. The implementation of funding and fiduciary standards helped to ensure that money would be available to pay these benefits. As a result of these changes, more workers covered by private sector programs receive benefits, and many get larger benefits than they would have in the absence of ERISA. Some critics contend that ERISA deprived other workers of benefits because small employers were unable or unwilling to meet the new standards and either terminated or did not create a defined benefit plan. Many of these small employers opted for 401(k) or other defined contribution plans to avoid the higher costs associated with a defined benefit plan.

Technically, ERISA's provisions applied to both defined benefit and defined contribution plans. But the main thrust of the legislation was on the defined benefit side. Defined contribution plans existed in the mid-1970s, but in large companies they generally served as supplements to defined benefit plans.[12] In small firms, defined contribution plans in the form of profit sharing or money purchase plans often served as the primary retirement income program.[13] But they covered relatively few workers. And the defined contribution plans that did exist looked different from today's 401(k) plans. Coverage was automatic, and the employer generally made the contributions and selected the investments. Investment options for employees became available only in the 1980s.

The landscape is very different today. As noted above, the 401(k) is now the dominant form of pension plan, and the majority of 401(k) participants have no additional source of retirement income other than Social Security. The defining characteristic of 401(k) plans is that they shift the risks and responsibilities associated with providing retirement income from the employer to the employee. Shifting the risk means that employees both enjoy the gains and suffer the losses of their investment decisions. In terms of responsibilities, the employee decides whether or not to participate, how much to contribute, how to invest the assets, and how to withdraw the

12. For large employers the supplements were either thrift savings plans, to which the employee contributed on an after-tax basis and the employer matched pretax contributions, or deferred profit-sharing plans, in which the contributions varied annually. The profit-sharing plans were prevalent among banks, although Kodak and Xerox were pioneers in this area. One problem with these plans was that the regulations allowed distributions after two years of accumulation. While many plans required or encouraged lower paid employees to put money in, they also allowed them to withdraw their money after two years—at the same time they were putting new money into the plan. Because the lower paid employees were not contributing any additional funds, such plans were in effect limited to higher paid employees. To ensure that the same pattern was not repeated with 401(k) plans, section 401(k) prohibits distributions before age fifty-nine-and-a-half or separation from service, except in the case of hardship.

13. The largest defined benefit plan in the country, TIAA-CREF, also served as the primary plan for people employed in higher education and the nonprofit sector.

money at retirement. In addition, most workers have access to 401(k) funds before retirement, adding another element of individual responsibility.

This shift in risk and responsibilities raises a number of significant issues during both the period when employees accumulate assets in their accounts and the period when they withdraw their funds. This book explores these issues. Its focus is on individuals and how they fare under the new employment-based pension system. By design, little attention is given to the effect of pensions on national saving, how pensions affect aggregate labor supply, or how the U.S. pension system compares to those in other countries.

Organization of the Book

The book is organized around the sequence of decisions that individuals must make with regard to their 401(k) plans: whether or not to participate, how much to contribute, how to invest the funds, what to do with accumulations when changing jobs, and how to deal with the lump-sum payment at retirement.

To set the stage for this analysis, chapter 2 explores the possible ways that the shift in coverage from defined benefit to 401(k) plans could affect future retirement income. The avenues for change include the number of people participating in plans, total pension accumulations, the distribution of risk between employee and employer, and incentives for employees to shift jobs and retire.

Given the popularity and growth of 401(k) plans, one would have thought that their introduction might have boosted pension plan coverage in the United States. But overall pension coverage has remained virtually unchanged.[14] Also unchanged is the potential for significant retirement income. Simple simulations show that potential accumulations under either a hypothetical defined benefit plan or a 401(k) plan are substantial. Similarly, participants in 401(k) plans, like their defined benefit brethren, also face the potential erosion of the purchasing power of their benefits after retirement due to inflation. A number of factors, however, have changed: 401(k) plans eliminate impediments to mobility and incentives to retire early, both positive changes. But they also shift to the employee all the investment risk and reward during the accumulation phase and the mortality and interest rate risk and reward upon retirement. On balance it is hard to tell whether workers as a group are ahead or behind because of the shift from defined benefit to 401(k)

14. Although the portion of the work force covered by a pension has remained unchanged, the portion of pension participants with vested benefits has increased significantly.

plans and whether particular groups are affected differently. Answering these questions requires a detailed look at each stage of the 401(k) process.

Chapter 3 looks at participation and contribution issues. Participation in a 401(k) is voluntary, and about 26 percent of those who are eligible choose not to participate.[15] Failure to participate may be rational for people under severe financial pressure. But it may also be due to shortsightedness or a lack of information. Once individuals decide to participate, they need to decide how much to contribute. Less than 10 percent of participants contribute the maximum, despite the obvious tax advantages and the possibility that their employer will make a matching contribution. One question is why contributions remain low, and another is whether the current level of contributions can ensure adequate retirement income. This chapter investigates why so many workers elect not to either participate or contribute the maximum and how various policies could increase participation and contribution rates.

The next two chapters look at investment issues. Chapter 4 addresses how successful 401(k) participants are as investors. The evidence suggests that they do not do a good job. More than half have all their money either in a no-stock or a virtually all-stock portfolio. It could be that these patterns are age appropriate: no stocks for those approaching retirement and all stocks for the young. Participants could also hold other assets outside the plan that balance their overall portfolio. But this asset allocation pattern does raise the question of whether the portfolios of 401(k) participants are adequately diversified, and the evidence is hardly reassuring. Aside from their 401(k) accounts, the average participant has little in the way of assets other than housing. Participants in 401(k) plans almost never rebalance their portfolios, as prudent financial theory suggests, either in response to a run-up in the stock market or to reduce risk as they age. It seems that investing is a complicated proposition for the vast majority of participants. This should not be surprising since the only investment decisions that most people make are in their 401(k) plan. The options for improving investment choices are either to make the investment process easier or to make all participants into investment experts.

Investment allocations look even worse once company stock—the stock of the company the investors work for—enters the picture. Chapter 5 shows

15. The discussion here and in chapter 3 focuses on participation among those eligible to participate. But not all employees are eligible. The law specifically permits an exclusion from consideration of any employees covered by a collective bargaining agreement, providing there is evidence that the retirement benefits resulted from good faith bargaining. Certain nonresident aliens and airline pilots as well as employees not meeting the minimum age and service requirements may also be excluded. VanDerhei and Olsen (2001).

that 17 percent of all 401(k) assets are invested in company stock. Nationwide, roughly 20 million participants hold more than 10 percent of their 401(k) assets in company stock. This pattern appears mostly in large plans; less than 3 percent of 401(k) plans have company stock, but these plans cover 42 percent of participants.[16]

Substantial investment in company stock flies in the face of modern financial theory, since diversifying a portfolio offers large and essentially costless gains. It is even more important to diversify investments away from one's employer. Nevertheless, both employees and employers are enthusiastic actors in the drama. Many employees are drawn to something familiar, something they know, and underestimate the risk of investing in company stock. They tend to place a lot of weight on past performance; if their company's stock has done well in the past, they assume it will do well going forward. And if they see executives getting rich, many want to get in on the action. Employers also tend to push company stock. They contend it aligns the employees' interests with that of the business and makes them more productive. And for reasons discussed in chapter 5, most employers prefer to make 401(k) matching contributions in stock rather than cash. As both employees and employers are enthusiastic about investing in company stock, changing this practice is no small problem. The challenge is to reduce employee holdings of company stock without damaging the usefulness of 401(k) plans.

After focusing on participation, contribution, and investment issues, chapter 6 turns to the question of leakages from 401(k) plans. Participants are often allowed to borrow from their accounts and to withdraw money before retirement to cover housing, medical, and other expenses. Workers also ordinarily have the option of taking a lump-sum distribution when they change jobs. (Increasingly, this has become a design feature of defined benefit plans as well.) To the extent that participants take money out of their 401(k) plan, either through borrowing and not repaying the loan or by spending distributions, they will have less income in retirement.[17]

The evidence suggests that borrowing is not a major concern but that cashing out lump-sum distributions is a serious problem. About 20 percent of the dollars from such distributions are not rolled over into an IRA or another 401(k) plan. In particular, small accumulations held by young people are typically spent. This is also true of lump-sum distributions from defined benefit plans. The result is that these individuals will have signifi-

16. VanDerhei (2002).

17. For individuals who expect their earnings to rise sharply as they age, cashing out might be optimal. But for most participants, cashing out probably represents shortsightedness about their retirement needs.

cantly smaller balances than suggested by the simple simulation discussed in chapter 2. The final way in which people can reduce the effectiveness of 401(k) accumulations is by cutting back their other saving. Here, the evidence suggests that the reductions may be more modest than those that occur in response to a defined benefit plan. Nevertheless, current and potential leakages from 401(k) plans are a significant problem.

Chapter 7 explores the final stage of the 401(k) process: figuring out what to do with accumulated funds at retirement. Unlike traditional defined benefit pensions that have only an annuity option and provide participants with steady benefits for as long as they live, 401(k) plans generally pay out lump sums. Large numbers of the new hybrid defined benefit plans also pay lump sums, raising the same issues. Since 401(k)s are still a relatively recent phenomenon and most participants are still in the work force, little research has been done on the withdrawal phase. However, these plans are maturing and millions of baby boomers are beginning to retire, and how participants use their 401(k) money will become an increasingly important issue.

Lump-sum payments mean that these retirees must decide how much to withdraw each year. In doing so, retirees run two possible risks, either consuming their nest egg too quickly and running out of money before they die or consuming it too slowly and unduly restricting their standard of living in retirement. These risks could be eliminated through the purchase of annuities, but the individual annuity market is tiny. Once people are given a pile of wealth, they want to manage and control it themselves. Nor do they appear to understand the risk of outliving their resources or the higher level of income that annuities offer. Too often they view annuities as a gamble with the insurance company, where the insurance company wins if they die early. Without annuitization, however, the baby-boom generation, which is the first to rely predominately on 401(k) plans to supplement Social Security, is going to have a difficult time in retirement. And the elimination of automatic protection for the surviving spouse suggests that poverty among elderly widows may well increase.

The concluding chapter, chapter 8, explores possible ways to reform 401(k) plans. The evidence from the previous chapters suggests that, although in theory workers could do very well under 401(k) plans, in practice they do not. Balances, even for long-service employees, are substantially less than those produced by even the most sophisticated simulations. The problem is that the entire burden is on employees, and many make mistakes at every step along the way. A significant 26 percent of those who are eligible do not participate; less than 10 percent of those who do participate contribute the maximum; over half do not diversify their investments, and almost none rebalance their portfolios in response to age or market returns; many cash out when they change jobs; and most do not annuitize at retirement. Changes are clearly needed to make 401(k) plans a more successful vehicle for providing retirement income.

One obvious answer that emerges from the study is to take advantage of participants' inertia and set the defaults in 401(k) plans to the desirable outcome. That is, all eligible participants would be automatically enrolled; their contribution would be set at the level of the employer match; their portfolio (say, at age 30) would be 70 percent stocks and 30 percent bonds and automatically rebalanced as they age; investment in company stock would be restricted; lump sums would be automatically rolled over; and retirement payments would be made in the form of a joint-and-survivor-indexed annuity. Of course, individuals could opt out at any stage. But research indicates that people tend to stay where they are put, and these defaults would put them in a much better place.[18]

The chapter also explores the broader question of changing the nature of 401(k) plans to reduce the investment and interest rate risk faced by employees. One option is some version of a cash balance plan modified to pay benefits as annuities rather than lump sums; this option would offer lower risk, albeit with lower returns than 401(k) plans. Finally, the chapter explores the implications of less certain private pension benefits within the context of the declining role of Social Security. It questions whether a new layer of retirement protection—some form of universal pension—might alleviate the pressures on 401(k) plans and provide coverage for those who have no employer-sponsored pension.

18. Choi and others (2001a, 2001b); Madrian and Shea (2002).