

## Saving for Retirement

Over the past few decades, concerns have mounted that Americans have been preparing inadequately for retirement. Recent newspaper headlines suggest that Americans have stopped saving and are at risk of sharp reductions in both their private and public pension benefits. To be sure, these concerns have some basis: The aggregate personal saving rate published in the National Income and Product Accounts (NIPA) turned negative in 2005; high-profile bankruptcies in airlines and other industries have led to substantial reductions in retiree pension benefits; the collapse of technology stocks in the early 2000s left many defined-benefit pension plans underfunded; and promised Social Security benefits vastly exceed forecasted revenues. Understanding how these events relate to retirement security is important if public policy is to respond productively. This chapter builds such an understanding. The main points are:

- Most working-age Americans are on track to have more retirement wealth than most current retirees. However, it is inherently difficult to assess whether these preparations are *adequate* for most households, given that incomes have also grown over time and people may have markedly different plans for their retirement length and standard of living.
- The decline in an often-cited aggregate personal saving rate may not be cause for alarm. Much of this decline can be attributed to spending triggered by wealth increases from capital gains on housing and financial assets.
- There are, however, a number of risks to the retirement preparations of Americans: People today are living longer and could face higher health-care costs in retirement than members of previous generations. In addition, Social Security and many defined-benefit pension plans are at risk.
- Both defined-benefit pensions and Social Security suffer from fundamental financial problems, which expose not just retirees but all U.S. taxpayers to risk of substantial losses. The Administration is focused on addressing these problems and protecting the Nation's retirement security.

### What Does “Retirement Preparedness” Mean?

Retirement preparedness is defined here as the accumulation of wealth necessary to maintain a desired standard of living in retirement. Economists tend to agree that individuals want to *smooth consumption* in retirement (i.e., limit the extent to which retirement will decrease their consumption). However, individuals may have disparate views about how much they want to

smooth consumption, when they plan to retire, and how much they intend to work in retirement. Thus, two individuals, even with the same preretirement standard of living, may have markedly different views about how much wealth accumulation is adequate.

For the purposes of this discussion, we divide the wealth that individuals can draw on in retirement into three categories: personal net worth, including defined-contribution pension plans; employer-sponsored defined-benefit pensions; and Social Security. (Retirement wealth also includes other expected benefits, such as retiree health care from employers and Federal programs, but such benefits fall outside the scope of this chapter.) Personal net worth is the sum of the value of financial assets (e.g., stocks and bonds held in and out of retirement accounts such as 401(k) plans, and savings accounts) and durable goods (e.g., houses and cars) less the value of liabilities (e.g., credit card debt, mortgages, and car loans). Net worth grows in part from personal saving—the excess of after-tax income over consumption—and in part from inheritances and capital gains on assets already owned. Some portion of current workers’ net worth, however, may be drawn down before retirement. For instance, households may liquidate financial assets or take out home-equity loans to make tuition payments, pay health-care expenses, or offset negative income shocks.

The other two sources of retirement wealth, employer-sponsored defined-benefit pensions and Social Security, are sometimes referred to as retirement income, since payments from both sources are periodic. Employer-sponsored defined-benefit pensions generally increase with years of employment and salary levels, while Social Security payouts tend to increase with retirement age and average lifetime earnings.

The next section of this chapter considers how prepared households are for retirement. Because the definition of retirement adequacy is somewhat subjective, we focus primarily on cross-generational comparisons of retirement-wealth accumulation. Cross-generational comparisons do not speak directly to the adequacy of retirement preparations, but do shed light on the related question of whether retirement preparations have deteriorated.

## Estimates of Retirement Preparedness

This section begins with a brief description of the results from studies that directly address the difficult question of whether retirement preparations are adequate. The section then discusses cross-generational comparisons, beginning with comparisons of net worth and ratios of net worth to income, and then turning to comparisons of retirement income from defined-benefit pensions and Social Security. The section concludes with a discussion of the key limitations of cross-generational approaches.

Studies that directly address the question of retirement adequacy typically define adequate wealth accumulation as essentially that which is expected to smooth consumption according to a particular model of individual preferences. Given that these studies make different key modeling assumptions, and in some cases include different components of expected retirement wealth, they have generated a wide range of results. Nevertheless, some recent studies find that most baby-boom households have been preparing adequately. In any case, conclusions about retirement adequacy based on these studies should be regarded as suggestive only, given the inherent uncertainty surrounding predictions of how much wealth is enough.

Comparing retirement wealth across generations, unlike evaluating the adequacy of any one generation's preparations, can be done without reliance on subjective assumptions. One such cross-generational study of retirement wealth contrasts the net worth (defined as above) of households in the baby-boom generation (individuals born between 1946 and 1964) and generation X (headed by individuals born between 1965 and 1976) with that of households in the pre-baby boom generation (headed by individuals born between 1925 and 1945). The study considers the net worth of the heads of these households when they were between 25 and 34 years old. Controlling for age is essential given that individuals tend to save at different rates over their lifetimes.

The study finds that baby-boom and generation-X households tend to have more net worth than pre-baby-boom households had when they were roughly the same age. As shown in Table 3-1, the median net worth of pre-baby-boom households at ages 25-34 was \$6,072 in 1998 dollars. In contrast, the median net worth of baby-boom and generation-X households was, respectively, \$19,504 and \$15,500 in 1998 dollars. The somewhat lower median net worth of generation-X households mainly reflects their higher debt burdens. The table also reveals that baby-boom and generation-X households with heads of all types—low or high education, married or single—were better off than pre-baby-boom households.

We might also want to compare household net worth to income for each generation to see whether saving rates have kept pace with increases in income. Intuitively, households with greater wealth-to-income ratios will be better able to maintain preretirement living standards when they retire. As shown in Table 3-2, the same study also finds that median net worth-to-income ratios are higher for the baby-boom and generation-X households than for the pre-baby-boom households, and these gains were experienced by a wide range of demographic groups.

Finally, we can compare the median expected retirement income of baby-boom households with that of generation-X households. The study finds that median expected retirement income (including predicted defined-benefit pension and Social Security payouts in inflation-adjusted dollars but not personal net worth) for generation-X households is greater than that for

TABLE 3-1.— *The Median Value (in 1998 dollars) of Net Worth for Households Headed by a 25- to 34-Year Old— Differences by Homeownership, Marital Status, and Education*

	Median		
	Pre-Baby Boom	Baby Boom	Generation X
Homeowners .....	\$25,594	\$60,521	\$43,100
Nonhomeowners.....	982	4,699	3,300
Less than high school.....	815	4,658	2,500
High school graduate .....	10,044	17,195	17,920
College graduate .....	23,953	36,569	30,020
Married .....	9,165	31,677	34,501
Not married.....	0	7,160	5,750
<b>All households.....</b>	<b>\$6,072</b>	<b>\$19,504</b>	<b>\$15,500</b>

Note: Government Accountability Office analysis based on data from the Survey of Consumer Finance. Households between the ages of 25 and 34 in 1962, 1983, and 1998 belong, respectively, to the “Pre-Baby Boom,” “Baby Boom,” and “Generation X.”

Net worth is equal to assets minus liabilities. Assets include IRAs, 401(k)s, 403(b)s, and other thrift-type plans, as well as savings accounts, mutual funds, stocks, bonds, and durable goods. Liabilities are from credit card debt, installment loans, and housing debt.

Source: Federal Reserve Board.

TABLE 3-2.— *Median Value of Wealth-to-Income Ratios for Households Headed by a 25- to 34-Year Old— Differences by Homeownership, Marital Status, and Education*

	Median		
	Pre-Baby Boom	Baby Boom	Generation X
Homeowners .....	0.641	1.343	1.044
Nonhomeowners .....	0.052	0.167	0.151
Less than high school.....	0.029	0.216	0.159
High school graduate .....	0.278	0.525	0.586
College graduate .....	0.510	0.799	0.743
Married .....	0.261	0.755	0.742
Not married .....	0.000	0.299	0.268
<b>All households .....</b>	<b>0.214</b>	<b>0.562</b>	<b>0.523</b>

Note: Government Accountability Office analysis based on data from the Survey of Consumer Finances. Households between the ages of 25 and 34 in 1962, 1983, and 1998 belong, respectively, to the “Pre-Baby Boom,” “Baby Boom,” and “Generation X.”

Net worth is equal to assets minus liabilities. Assets include IRAs, 401(k)s, 403(b)s, and other thrift-type plans, as well as savings accounts, mutual funds, stocks, bonds, and durable goods. Liabilities are from credit card debt, installment loans, and housing debt.

Source: Federal Reserve Board.

baby-boom households. A second, less sanguine, result is that if the Social Security system's expected funding shortfalls are resolved by gradually reducing retirement benefits (notably, not the Administration's proposed solution) and thus lowering benefits for generation X more than for the baby boomers, then the median expected retirement incomes of generation-X and baby-boom households are about the same. This implies that, in terms of retirement income relative to preretirement income, generation-X households have not kept pace with the baby boomers.

The results shown above have a few important limitations. First, cross-generational comparisons fail to adjust for the possibility that current generations may live longer and could face higher health-care costs in retirement than previous generations. As a result, current workers may need more retirement wealth than previous generations. On the other hand, longer life expectancies may encourage current generations to work longer than previous generations, which, all else equal, would lower retirement-wealth needs.

Another limitation of these cross-generational comparisons is that they consider only a relatively early period in each generation's lifecycle (although they allow the inclusion of more recent generations). However, studies that compare somewhat older households from the baby-boom generation to recent retirees find similar conclusions. Nevertheless, retirement preparations of today's Americans may veer off track as they age if they stop saving or if financial-asset returns, house-price gains, or defined-benefit pension and Social Security payouts turn out to be less than expected. The next section of this chapter addresses some of the key risks to retirement preparations.

## The Risks to Retirement Preparedness

Three risks to retirement wealth are discussed in this section: first, the risk to household net worth created by the negative level of the personal saving rate, as measured in the National Income and Product Accounts (NIPA); second, the risk to defined-benefit pension plans created by underfunding, in part due to investments in risky assets; third, the risk to Social Security from the aging of the population and other structural problems.

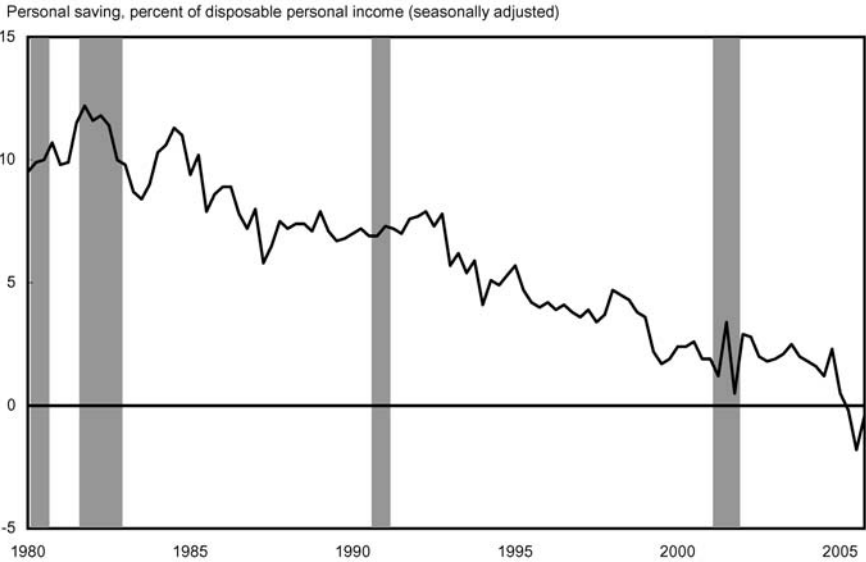
### Are Low Saving Rates Putting Household Net Worth at Risk?

The NIPA personal saving rate is the difference between the *household sector's* after-tax personal income (*disposable income*) and personal consumption, expressed as a percentage of disposable income. As a technical matter,

the household sector includes nonprofit institutions. The NIPA personal saving rate was constructed as a measure of the household sector's contribution to *national saving*—funds set aside from the economy's current production to finance investment (see Chapter 1, entitled *The Year in Review and the Years Ahead*, and Chapter 6, entitled *The U.S. Capital Account Surplus*, for more discussion of the national saving rate). However, the NIPA personal saving rate is widely cited in newspapers as a gauge of retirement preparedness. The discussion here details the NIPA saving rate's limitations as a measure of the extent to which households are adding to their retirement wealth. The goal of the discussion is to assess whether the decline in the NIPA personal saving rate reflects a widespread deterioration in household retirement preparations.

Chart 3-1 illustrates the decline in the NIPA personal saving rate. The saving rate is volatile from quarter to quarter but has been trending down at a relatively constant rate of about 0.5 percent per year since the early 1980s. In the fourth quarter of 2005 (the most recent quarter for which data are available), the NIPA personal saving rate was -0.4 percent, not far above the post-World War II low observed in the third quarter.

**Chart 3-1 Personal Saving as a Percentage of Disposable Personal Income**  
 The saving rate has declined from 10 percent to a bit below zero over the past 25 years.



Note: Shaded areas indicate recessions.  
 Source: Department of Commerce (Bureau of Economic Analysis).

However, the relationship between the personal saving rate and households' wealth accumulation is not always close. Household net worth is what matters for retirement, but the NIPA personal saving rate is not equal to the change in household net worth. First, the NIPA personal saving rate excludes the acquisition of consumer durables, a component of household net worth. Second, while business saving (such as businesses' retained profits) is ultimately owned by households, it is also excluded from NIPA personal saving. Third, and arguably most important, the NIPA personal saving rate excludes capital gains on financial and other assets (e.g., the increase in the value of a house); however, taxes on capital gains, which reduce the saving rate, are included in the computation of personal saving. The exclusion of capital gains is particularly problematic because capital gains may encourage households to consume more, which in turn drives down the measured saving rate. In other words, capital gains may be reflected in the data as reductions in saving, even though these gains add to household wealth on net—though some might argue that these gains can be illusory.

### *Do Wealth Gains Explain the Decline in the NIPA Personal Saving Rate?*

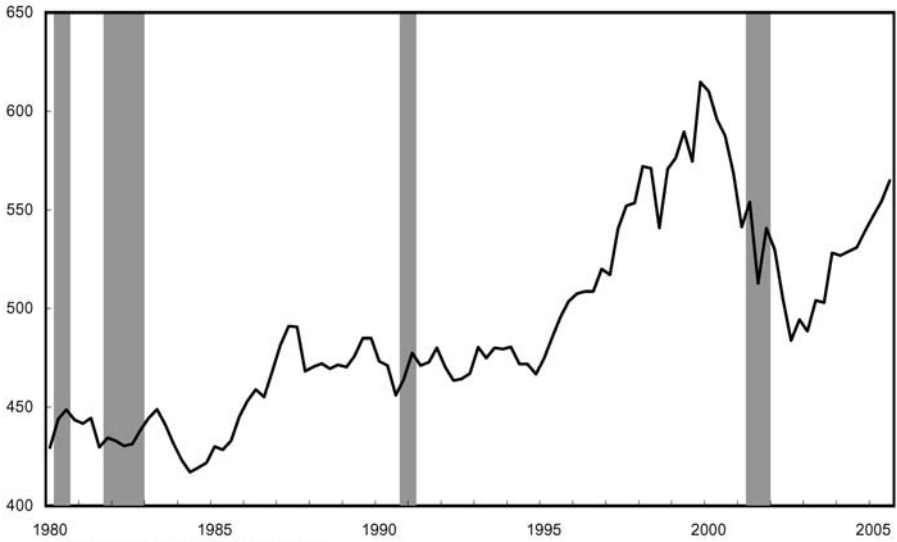
The *consumption-wealth effect* (i.e., the tendency to consume more as wealth increases) has been the subject of numerous empirical investigations. Studies find that an additional dollar of wealth tends to lead to a permanent rise in the level of household consumption of about 2 to 5 cents. The link between aggregate wealth and spending has proved to be one of the more enduring relationships in macroeconomics.

Estimates of the consumption-wealth effect suggest that it can explain a sizable portion of the decline in personal saving since the mid-1990s. As shown in Chart 3-2, the ratio of household net worth to disposable income has risen from about 440 percent in the early 1980s to about 550 percent in the third quarter of 2005. This measure of household net worth, obtained from the Federal Reserve's Flow of Funds Accounts, is the difference between household assets—including defined-benefit pension wealth—and household liabilities. The ratio moved up and down with the rise and collapse of the stock market in the late 1990s and early 2000s and then rebounded more recently along with rising house prices and stock market gains. An estimate of the impact of these wealth gains on the NIPA personal saving rate is shown below in Chart 3-3. Under the assumption that an additional dollar of wealth leads to a \$0.035 permanent rise in the level of consumption (the middle of the range cited above), the chart shows that the personal saving rate would have declined about half as much since 1980 if household wealth had grown at the same pace as disposable income (keeping the ratio constant) over that period.

### Chart 3-2 Household Net Worth as a Percentage of Disposable Income

Since the mid-1990s, net worth has increased on balance relative to disposable income.

Percent

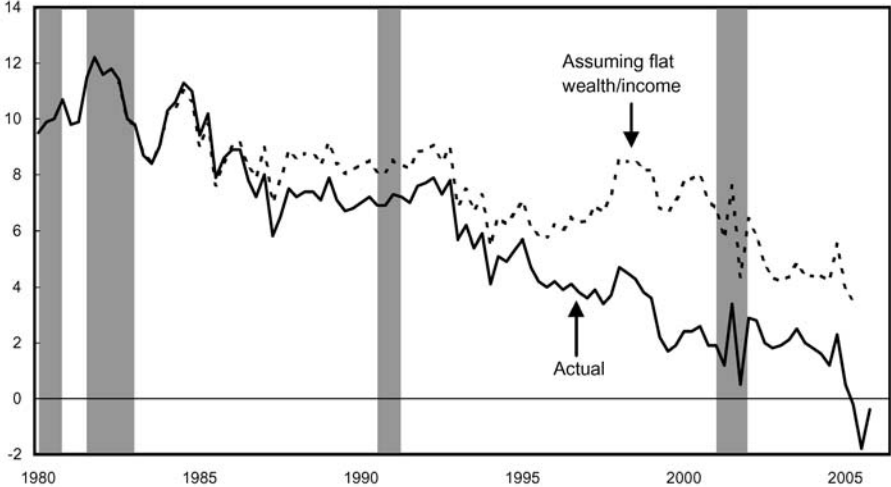


Note: Shaded areas indicate recessions.  
Source: Federal Reserve Board.

### Chart 3-3 Household Saving Rate as a Percentage of Disposable Income

If wealth only grew as much as disposable income since 1994, the saving rate would have declined substantially less.

Percent of disposable income



Note: Shaded areas indicate recessions. The difference between the two lines reflects additional consumption triggered by wealth gains. The calculation assumes that a \$1 change in wealth leads to a total of \$0.035 change in consumption over a two-year period.

Sources: Department of Commerce (Bureau of Economic Analysis) and Federal Reserve.



## *Are Saving Rate Declines Widespread?*

Yet another limitation of the NIPA personal saving rate as a measure of households' wealth accumulation is its aggregate nature; as such, it masks possible differences in behavior by households at different income levels. Understanding the saving dynamics in different parts of the income distribution requires household-level data on saving.

However, household wealth at the individual level is difficult to track over time. One study thus employed an innovative approach to circumvent various data problems and found that the saving rate, using NIPA definitions, for households in the upper two-fifths of the income distribution declined over the 1990s, while the saving rate for households in the middle fifth remained relatively steady, and the saving rate for households in the bottom two-fifths actually increased. Given that high-income households almost certainly experienced the majority of capital gains in the 1990s, these results suggest that the net worth component of retirement wealth may not be at risk. Relatively high-income households may have accumulated net worth from capital gains, while other households may have accumulated net worth by saving.

Overall, the above discussion of household saving suggests that the net worth component of retirement preparedness may not be in jeopardy. The NIPA personal saving rate is a potentially misleading measure of households' wealth accumulation. Moreover, much of the recent decline in the NIPA personal saving rate may reflect consumption increases that were triggered by capital gains on stocks and real estate. Finally, some evidence suggests that the decline in household saving rates has not been widespread but may have been concentrated among higher-income households.

## *Policy Reforms*

While the net worth component of retirement wealth does not appear to be in jeopardy, policy reforms can still productively reduce impediments to saving. Under current law, interest income is taxed, creating a disincentive for households to set aside funds for retirement. This disincentive is mitigated to some extent by policies that afford favorable tax treatment to various types of retirement accounts (e.g., IRA and 401(k)). However, restrictions on these accounts limit their value as retirement-saving vehicles. To make these accounts more effective, Congress passed legislation that increases contribution limits and makes retirement assets more portable. In addition, the Administration has proposed simplifying the retirement account system in two important ways: (1) creating a single Retirement Savings Account (RSA) to replace the three types of Investment Retirement Accounts (IRAs) currently in place; and (2) creating a Lifetime Savings Account (LSA) that could be used for a variety of purposes, including retirement saving (see Chapter 5, entitled *The U.S. Tax System in International Perspective*, for

additional discussion of tax recommendations in the President's Budget). Another impediment to saving may be limited financial knowledge. The Department of the Treasury is actively engaged in campaigns to improve financial literacy. In addition, the President has instructed the Federal Deposit Insurance Corporation (FDIC), the Small Business Administration (SBA), and the Treasury Department to work with consumer groups to ensure that financial literacy is widespread.

## Defined-Benefit Pensions

Historically, *defined-benefit* pension plans have been an important part of retirement preparedness. These employer-sponsored plans compensate retirees through a specified monthly benefit, which tends to vary with salary and years of service. In addition, most plans sponsored by private employers are guaranteed in part by the Pension Benefit Guaranty Corporation, and those sponsored by public employers are ultimately backed by the ability of states to levy taxes. As such, "DB" plans may appear more stable than increasingly prevalent "defined-contribution" plans (such as 401(k) plans), which explicitly depend on employee contributions, tie benefits more directly to market performance, and may expose retirees to longevity risk (the risk of outliving retirement resources).

Defined-benefit plans can, nevertheless, carry considerable risk. This risk comes from employers (1) contributing less to plans than what is promised to employees (*funding risk*), (2) investing contributions in a hazardous manner (*portfolio risk*), and (3) encountering financial distress (*bankruptcy risk*) in the case of private employers. When these risks are realized, beneficiaries and taxpayers can be exposed to substantial and oftentimes unanticipated losses.

An early example of these problems comes from the 1960s landmark case of Studebaker Corporation. When this former carmaker defaulted on its defined-benefit plan, it left about 11,000 participants without most or any of their pensions. These losses eventually led Congress to set minimum standards for private pension plans via the Employee Retirement Income Security Act (ERISA) in 1974.

ERISA gave rise to the Pension Benefit Guaranty Corporation (PBGC), which now partially insures the pensions of over 34 million workers and retirees. The PBGC largely funds itself with premiums from private-sector sponsors of defined-benefit plans (i.e., employers). When an employer becomes financially distressed, the PBGC may take control of the plan's management and use the plan's assets and its own funds to pay retirees a capped portion of their promised benefits. Employees in contemporary cases like the bankruptcy of United Airlines filed in 2002 are thus less exposed to defined-benefit risks than were employees in cases like Studebaker.

Despite this insulation, employees with defined-benefit pension plans sponsored by private employers remain exposed to considerable risks. As of 2005, for example, the limit on PBGC insurance increased with retirement age, and topped out at about \$46,000 per year. Employees whose plans default can thus incur considerable losses when their promised benefits exceed these limits. United's workers, for example, expect to receive about 80 percent of their earned benefits, and thus stand to lose more than \$3 billion of total promised benefits. In addition, as the following sections show, the combination of inadequate protections and a series of pension defaults has left the PBGC with insufficient funds for paying even these limited claims. Consequently, if losses overwhelm the pension insurance system, Congress may step in and pass the bill to taxpayers.

For defined-benefit plans sponsored by public employers, the taxpayer exposure is even more direct. Recall that the PBGC only insures plans sponsored by private employers. In the event that a publicly sponsored plan's assets are insufficient to pay benefits, absent renegotiation of benefits, such plans could only be made whole with the support of state-level tax revenues.

### *Employee Exposure to Defined-Benefit Risks*

Recently, market fluctuations and the rules that govern how employers participate in the defined-benefit system appear to have turned risks into reality. Decreasing interest rates and stock market valuations, coupled with the exposure of pension plan assets to market fluctuations, coincided with a marked increase in the underfunding of defined-benefit plans. Underfunding, in turn, increased expected defaults on pension obligations, putting both workers and the pension insurance program into jeopardy.

In the case of privately sponsored pensions, the value of assets set aside to fund retirement obligations began to decrease in 2000 while the value of promised benefits began to increase. The total underfunding of private pension plans grew from less than \$50 billion at the end of 2000 to over \$400 billion today. At the same time, as Chart 3-4 illustrates, PBGC's capacity to insulate workers from employer defaults turned from a \$10 billion surplus in 2000 into a deficit that now totals more than \$20 billion.

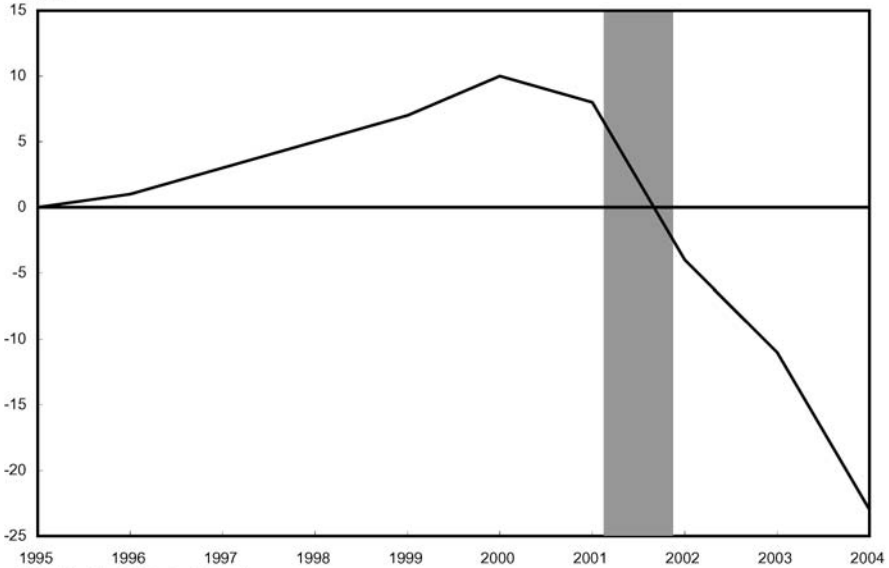
This deterioration can plausibly be attributed to the exposure of pension plan portfolios to coincident decreases in both interest rates and stock market valuations. A decrease in interest rates can contribute to this problem by increasing the measured *present value* of a pension plan's promised benefits. A decrease in stock market valuations can further contribute by weakening the ability of plan investments to pay benefits.

To see this relationship, suppose that an individual wants to buy a new appliance next year for \$500, and consider how much must be saved today to

Chart 3-4 **Funding Status of the Pension Benefit Guaranty Corporation**

The PBGC's funding status has worsened significantly since 2000.

Billion \$



Note: Shading Indicates Recession.

Source: Pension Benefit Guaranty Corporation.

fund this purchase. The answer depends on how much interest these savings will earn: As this interest increases, the savings that are necessary to fund the future purchase decrease. Extreme cases are illustrative: One would have to save \$500 today if the interest rate is 0 percent, but only \$250 if it is 100 percent. This example reflects a more general relationship: When interest rates decrease, the present value of future obligations increases.

For pensions, this relationship implies that employers must set aside more funds to meet pension obligations when interest rates decrease. The decrease in interest rates that started late in 2000 thus threatened the funding status of defined-benefit pension plans.

A simultaneous decrease in stock market valuations from the peaks of the late 1990s appears to have furthered this threat. At the same time that interest-rate changes were increasing the value of employers' obligations, a decrease in stock market valuations was diminishing the value of assets that employers had set aside to fund those obligations. Together, these changes coincided with the marked weakening in the funding status of both defined-benefit plans and the PBGC.

While market fluctuations appear to have been an important contributor to these woes, they could be made less so. To see why, recall from above that the PBGC manages the pension plans it receives from financially distressed employers. In doing so, it reduces exposure to interest-rate fluctuations by matching investment payoffs with the timing of employee benefits. The value of plan assets and liabilities will tend to move more closely together under this strategy of duration matching than they would under the strategies that employers appear to have used.

### *Taxpayer Exposure to PBGC's Deficit*

The recent spike in underfunding has also exposed taxpayers to the prospect of making up for the PBGC's deficit (recall that this exposure is more immediate for publicly sponsored plans). While the PBGC's liabilities are not explicitly backed by the Federal government, a future Congress might decide that a taxpayer bailout is preferable to a PBGC default. Indeed, taxpayers' exposure to the PBGC's deficit is especially concerning since the manner in which it evolved mimics how the 1980s savings and loan (S&L) crisis developed.

Like the insurance that PBGC offers, the insurance offered to depositors at financial institutions can provide important benefits. But if they are not prudently managed, these insurance programs can fall prey to moral hazard (explained in Chapter 9, *The U.S. Financial Sector*) and thus expose taxpayers to an undue liability. In the 1980s, for example, loose regulatory oversight let savings and loans overly expose themselves to market fluctuations (such as changes in real-estate values and interest-rates) and ultimately left insufficient funds for paying off depositors. Depositors did not fully bear the burden of this underfunding, however. Instead, the Federal Savings and Loan Insurance Corporation (FSLIC) insured depositors in much the same way that PBGC covers retirees.

In an analogous manner to the current pension situation, market fluctuations and regulatory difficulties not only helped increase the rate at which depositors drew on this insurance, they also compromised FSLIC's capacity to pay insurance claims. Like the PBGC, FSLIC was structured to be self-financing. Nevertheless, taxpayers ultimately paid about \$150 billion for the financial losses of failed institutions.

The PBGC faces a situation that is similar to what plagued FSLIC. Waiting to implement productive reforms magnified taxpayers' burden in bailing out the S&L industry. Postponing the issue of underfunded pension plans can likewise make matters worse for pensioners and taxpayers. According to testimony by the PBGC's executive director, the PBGC's present \$23 billion deficit could grow toward \$80 billion over the next ten years. Without prompt and effective action, taxpayers may thus find themselves bailing out yet another "self-financed" public insurance program.

## *Policy Reforms*

Prompt action, grounded in good economics and informed by lessons learned from similar financial crises, can keep the current pension problem from becoming even more burdensome. To help the private pension system move in this direction, the administration has proposed to strengthen the requirements for funding privately sponsored pension plans and improve the manner in which plan sponsors disclose information. State-level policies that would address the problems with plans sponsored by public employers are at an earlier stage of development.

Current funding and disclosure rules can allow privately sponsored pension plans to appear healthier than they actually are. Reforms such as restricting the use of “credit balances” could help enhance funding adequacy and transparency. Under present law, employers receive credit for contributions that exceed minimum requirements and can later use those credits in lieu of actual contributions. This treatment is problematic. For example, excess contributions are characterized as earning interest even if the assets in which those contributions were invested lose value. Moreover, credit balances can delay plan sponsors from addressing funding problems and thus let even grossly underfunded employers forgo actual contributions.

Limiting private employers’ ability to use an average interest rate to value plan liabilities could also strengthen funding and improve transparency. Recall that, as interest rates decrease, the present value of an employer’s pension obligations increases. Current law lets employers use a moving average of these rates spread out over several years, however, and thus mutes the near-term effect of an interest-rate decrease on an employer’s contribution requirements.

To see this effect, suppose that employers can use a two-year average, and that interest rates decrease from 6 percent to 5 percent. Using an average rate, employers could discount their future obligations at 5.5 percent. But if employers had to use the current rate of 5 percent, they would have to increase contributions by more, and do so more quickly. Averaging the discount rate can thus cloud the picture of a plan’s status.

The Administration has similarly proposed limits on the ability of private employers to smooth reported fluctuations in the value of their plan-assets. Coupled with the related proposal for plans to accurately address the timing of benefit payments, this reform could reduce the portfolio risks that are characterized above as the proximate cause of the system’s weakened funding status.

Finally, the administration has proposed to increase funding targets, measure the performance of plans in a uniform manner, and update assumptions like those of mortality. These reforms, like the others discussed above, would enhance the integrity of the defined-benefit system, and should be uniformly applied across plan sponsors. Doing otherwise would give some

economic sectors, or firms within a sector, an artificial advantage. Economic performance could deteriorate as scarce resources flow not to their most productive uses, but to their most politically-favored uses. In addition, exempting certain sectors or firms could exacerbate the underfunding problem by breathing artificial life into risky plans and thus further exposing workers, retirees, and taxpayers to economic risk.

## Social Security

Along with personal savings and employer-provided pension plans, Social Security has long stood as a pillar of retirement security. A response of Franklin D. Roosevelt's administration to the Great Depression, the Social Security Act was signed into law on August 14, 1935, and first issued monthly retirement checks in January 1940. At that time, about 200,000 retirees received aggregate benefits valued at about \$35 million. Since then, both the number of beneficiaries and the level of benefits has steadily grown. In 2004, more than 47 million beneficiaries received a total of about \$493 billion through the Old Age, Survivor, and Disability Insurance programs (OASDI).

These benefits are funded by taxes on wage income. In an accounting sense, employers and employees equally share this funding by contributing 6.2 percent of taxable payroll each. Since employers focus on the total cost of labor, however, workers bear most of this combined 12.4 percent tax. For each worker, this tax applies to payroll beneath a ceiling that annually adjusts with the average wage index. That ceiling, which stood at \$90,000 in 2005, increased to \$94,200 for 2006.

### *Taxpayer Exposure to an Increasingly Large Social Security Burden*

The overall cost of Social Security is substantial. The Office of Management and Budget (OMB) estimates that Social Security transfers amounted to 4.2 percent of GDP in 2005. During the coming decades, Social Security's share of GDP is expected to increase, reaching 6 percent in 2035.

In the short term, this increase will largely come from the retirement of baby boomers, which begins in 2008. It will persist in the long run, however, due to a combination of relatively low fertility rates and relatively high life expectancies. These factors will push the ratio of workers to retirees down from its current level of 3.3 to 1 to around 2 to 1 by the time that most baby boomers retire.

Since the benefits of those currently retired mostly come from taxes on those currently working, these developments will create considerable pressure to increase payroll taxes. Indeed, the Social Security Administration's actuaries estimate that, starting in 2017, the system's annual cost will exceed its total tax income (which includes taxes on payroll and Social Security benefits themselves).

From an accounting perspective, Social Security can still fully fund benefits at this point because the system has run surpluses since 1984, holding special Treasury bonds as IOUs. Although they are assets to the Trust Fund, however, these IOUs are equally debt to the Federal government, and thus an obligation that faces taxpayers.

The actuaries estimate that without legislative action, the Trust Fund's IOUs will run out by 2041, leaving a system that can fulfill only 74 percent of currently scheduled benefits. Even more, promised Social Security benefits from 2005 to 2080 are expected to exceed the sum of revenues and Trust Fund IOUs by \$4 trillion in present value. Given these mounting costs, taxpayers and workers would be better off dealing with this problem now rather than later.

Social Security reform has been on the national radar for decades (see Box 3-1). Notably, former President Clinton convened an Advisory Council which, in 1996, released several recommendations. Two of the three plans supported by the Advisory Council involved some kind of voluntary personal retirement accounts (through publicly held individual accounts in one case and privately administered personal accounts in another), and the other plan also envisioned moving to a system of advance funding, albeit through government-directed investment in equities. Importantly, the longer it takes to initiate reforms, the greater any changes must be, because they will be shared by fewer generations.

### *Policy Reform: Progressive Indexing*

Projections suggest that, under current law, the Social Security system will soon be unable to pay for itself. Many of the proposals to address this problem fall short of a productive and durable reform. Removing the cap on wages that are subject to the payroll tax, for example, would not only increase contributions to the system but also increase the system's promised benefits in the long term. Progressively reducing future benefit growth, on the other hand, may strike an attractive balance by closing roughly two-thirds of the system's long-range annual cash shortfalls while maintaining the system's capacity to act as a social safety net.

Initial benefits for new retirees are currently indexed to wage inflation rather than price inflation. Since wages typically increase at a faster rate than prices (reflecting gains in productivity), wage indexation results in increasingly large benefits in real dollar terms. Progressive indexing would decrease the rate of benefit growth for individuals whose lifetime earnings are the highest (less than the highest 1 percent of all wage earners) by linking their benefit growth to price increases. At the same time, it would maintain the current law's more generous benefit-growth rate for individuals whose lifetime earnings are relatively low. Benefits of retirees in the upper 70 percent of the



### **Box 3-1: Earlier Attempts to Shore Up Social Security**

Congress has responded to developing problems with Social Security finances in the past. For example, both 1977 and 1983 saw the signing of significant amendments to improve the system's deteriorating financial condition.

Why were the system's finances deteriorating then, and why are they continuing to do so today? There are several answers. First, the 1972 amendments to Social Security effectively indexed benefit growth for those working at the time to both wage and price inflation, essentially providing two cost-of-living adjustments. This double-benefit indexation was amended in 1977 to establish the current method of wage indexation. But while wage indexation addressed the double-indexation issue, some experts warned that, coupled with demographic changes, it would still require future taxpayers to shoulder larger Social Security tax burdens than is required today.

Second, the economic projections following the amendments of 1972, 1977, and 1983 proved overly optimistic. From 1972 to 1976, for example, real wages grew by nearly 11 percent less than expected, resulting in lower than anticipated growth of the payroll income base on which Social Security taxes were collected. Similarly, from 1977 to 1981, real wages decreased by about 6.9 percent rather than increasing by 12.9 percent as projected. Assumptions made following the 1983 reforms were not as far off as those of 1972 and 1977, but are nonetheless responsible for some of the overstatement of Social Security's financial strength. Consequently, although the year for the exhaustion of the Trust Fund was forecast to be 2063 in 1983, it has been pushed forward and now stands at 2041.

Third, and perhaps most importantly, the 1983 reforms did not attain sustainable solvency. The 1983 reforms envisioned several decades of Social Security surpluses, followed by several decades of large and growing deficits. This meant that with the passage of time, Social Security would again become financially imbalanced. Even as early as the 1985 Social Security Trustees' report, it could be seen that the system was again heading out of long-term balance. This is one reason why a number of bipartisan commissions have since recommended that future Social Security reforms place the program on a sustainable, as opposed to merely a solvent, footing.

distribution would depend on a combination of price and wage increases. The system would be progressive because benefit growth would slow the most for those with higher earnings. This method of benefit growth would let future retirees enjoy benefits that are higher than those paid today while eventually ensuring that no person who works a full career would retire with a Social Security benefit below the poverty level.

Progressive indexing would slow the benefit-growth rate for high-income individuals in a manner that strongly pushes the system toward solvency. In addition, by maintaining a relatively fast rate of benefit growth for low-income individuals, progressive indexing would further protect retirement incomes from falling below the poverty level.

### *Policy Reform: Personal Accounts*

The traditional Social Security system largely funds retirement benefits by transferring payroll taxes from current workers to beneficiaries. In addition to being subject to the risk of insolvency (which, as explained above, can be addressed in part through progressive indexing), this type of *pay-as-you-go* system runs the risk of future workers voting to cut back on their contributions. This risk may be considerable, as additional changes needed to restore solvency would leave future retirees with substantially smaller benefits than the current system's promises.

This problem comes in large part from a system that relies on future generations to fulfill promises made today. By letting individuals pre-fund their retirements, personal accounts allow current generations to rely in part on their own savings, rather than solely upon contributions that future generations may be unwilling or unable to make.

Because this issue is separate from that of solvency, personal accounts need not (and under the President's proposals, would not) adversely affect the system's long-term finances. If traditional benefits are offset by the amount that individuals could obtain by investing in low-risk assets, such a reform can be made approximately neutral with respect to the capacity to fulfill remaining traditional benefits. Such offsets are said to be roughly neutral on an actuarial basis because they leave (1) beneficiaries who remain wholly invested in government bonds with the same expected future benefit and (2) the Trust Fund with nearly the same expected long-term balance.

While they leave the long-term balance mostly unchanged, allocations to personal accounts do alter the timing of the system's future obligations. Their basic effect is to take some of the long-term obligation and shift it to an earlier time. Moving a portion of payroll taxes to personal accounts will take money off of the government ledger today, some of which is used to pay for current benefits and some of which has long been used to finance other Federal

spending. At the same time, because voluntary personal retirement accounts will replace a portion of unfunded future benefits, they also reduce future strains on the system.

Shifting the future imbalance forward in time could increase transparency by making the system's impending shortfalls less of an abstraction. Financial markets tend to applaud such solutions to fiscal challenges and might do so again in this context by keeping interest rates at productive levels.

Pre-funding a portion of future benefits appears attractive in other dimensions as well. Every dollar of benefits funded today through personal accounts is a dollar of benefits that need not be paid by taxpayers in the future. Because rising benefit obligations would under current law lead to increased tax burdens over time, shifting forward the funding of some benefits could create a more equitable treatment of different generations.

In addition, redirecting assets to personal accounts increases the likelihood that real savings will be accumulated to meet tomorrow's retirement needs. If these assets are owned and controlled by individuals, they will be less available for the government to spend than if these assets are left on the Federal ledger. Finally, personal accounts would provide an opportunity for individuals to diversify their investment in Social Security, which may add to their retirement security.

## Conclusion

This chapter's first section shows that today's generations are on track to have more retirement wealth than previous generations, though it is unclear whether these wealth gains have kept pace with rising preretirement incomes. Going forward, the relative security of retirement wealth may be compromised by fundamental problems with defined-benefit pensions and Social Security.

Both of these systems could be improved by more-effective funding rules and safeguards that protect against the opportunistic handling of retirement assets. Strengthening pension-contribution requirements, and watching more carefully how those contributions are managed, would go far to mitigate the growing risks to pensioners and taxpayers alike. Progressively targeting the rate of future benefit growth and expanding ownership over payroll contributions, likewise, would help strengthen Social Security for the future. In both cases, waiting to act allows the present problems to grow and increases the costs of adopting effective reforms.