

AMERICAN ACADEMY *of* ACTUARIES

Public Policy Monograph

January 2007

Social Security
Reform Options



AMERICAN ACADEMY *of* ACTUARIES

AMERICAN ACADEMY *of* ACTUARIES

The American Academy of Actuaries is a national organization formed in 1965 to bring together, under a single entity, actuaries of all specialties within the United States. In addition to setting qualification standards and standards of actuarial practice, a major purpose of the Academy is to act as the public information organization for the profession. Academy committees regularly prepare testimony for Congress, provide information to congressional staff and senior federal policy makers, comment on proposed federal regulations, and work closely with state officials on issues related to insurance.

The Academy's Committee on Social Insurance, whose charge is to provide and promote actuarial reviews and analyses of United States social insurance systems, prepared this paper. The committee consists of actuaries knowledgeable about the details of various social insurance programs and the nuances of individual programs. The report presents an overview of proposed reforms to the Social Security program. The intent is not to support any particular proposal, but to provide a clear, objective analysis of the options and assist the public policy process. Nevertheless, the report gives greater emphasis to those reform options that appear to be drawing the greatest attention from policy analysts and the media.

The members of the Social Insurance Committee who contributed to this report are:

Kenneth G. Buffin, EA, FSA, FCA, MAAA, *Chairperson*

Edward E. Burrows, EA, MAAA, MSPA

Ron Gebhardtshauer, EA, FSA, FCA, MAAA, MSPA

Eric J. Klieber, EA, FSA, MAAA, MSPA

Robert J. Randall, Sr., FSA, MAAA

Paul W. Robberson, FSA, FCA, MAAA

Bruce D. Schobel, FSA, FCA, MAAA

P.J. Eric Stallard, ASA, FCA, MAAA

Kenneth A. Steiner, EA, FSA, FCA, MAAA

Joan M. Weiss, EA, FSA, MAAA

Louis M. Weisz, FSA, MAAA



January 2007

Kevin Cronin, *Executive Director*

John Schneidawind, *Director of Communications*

Craig Hanna, *Director of Public Policy*

Ron Gebhardtshauer, *Senior Pension Fellow*

Heather Jerbi, *Senior Policy Analyst, Pension*

American Academy of Actuaries

1100 Seventeenth Street NW

Seventh Floor

Washington, DC 20036

Tel (202) 223-8196

Fax (202) 872-1948

www.actuary.org

Social Security Reform Options

Table of Contents

OVERVIEW AND RECOMMENDATIONS	1
SUMMARY OF THE FINANCIAL STATUS OF SOCIAL SECURITY	2
SOCIAL SECURITY BASICS	4
Earned Right and Universality	4
Individual Equity and Social Adequacy	5
Financing	6
CHANGES WITHIN THE CURRENT STRUCTURE	9
TAX CHANGES	9
Increase the Payroll Tax	9
Increase the Limit on Taxable Earnings	9
Increase Taxation of Benefits	9
Expand Coverage	10
BENEFIT CHANGES	11
Reduce Benefits Across the Board	11
Raise the Normal Retirement Age	11
Change the Benefit Formula: PIA Formula Percentages	11
Change the Benefit Formula: Bend-Point Indexing	13
Change the Initial Benefit Formula: AIME	14
Reduce Cost-of-Living Adjustments (COLAs)	14
Double-Deck Benefit Formula	15
Change Auxiliary Benefits	15
OTHER ALTERNATIVES WITHIN THE DEFINED BENEFIT STRUCTURE	18
Investment of Trust Fund Assets	18
Means Testing	18
General Revenue Financing	19
INDIVIDUAL ACCOUNTS	20
INDIVIDUAL ACCOUNT BASICS	20
Types of Design	20
Earned Right	21
Individual Equity and Social Adequacy	21
Financing	22
OTHER INDIVIDUAL ACCOUNT ISSUES	22
Voluntary or Mandatory Accounts	22
Managing Individual Accounts	23
Payout of Funds	24
CONCLUSION	27
FURTHER READING	28

Overview and Recommendations

This paper describes and analyzes Social Security reform options that address that program's financial challenges. It is intended to be comprehensive, but emphasizes proposed reforms that are currently receiving the greatest attention in the Social Security debate. Within this framework, this paper provides the necessary historical context to enable the general reader to understand more fully the implications of the various proposals. The paper is an objective analysis of these options; it is not intended to favor any particular position.

The federal government operates a number of social insurance programs, of which Social Security is currently the largest measured by annual benefits paid. Social Security consists of the Old-Age, Survivors, and Disability Insurance (OASDI) programs, which protect against the loss of earnings due to retirement, death, or disability.

Social Security was originally designed with the following general characteristics: (1) benefits are based on a balance between "individual equity" and "social adequacy;" (2) financing from, or on behalf of, participants makes the program "self supporting" and gives participants an "earned right" to benefits without a "means test;" and (3) participation is mandatory. Many currently proposed changes would alter these characteristics somewhat.

Nearly all workers in the United States participate in Social Security and have a clear interest in its financial viability. Many are aware that financial problems are projected for the program. The 2006 OASDI Trustees' report, one of a series published annually, describes the financial viability of Social Security based on a 75-year projection of income and expenses. To determine whether Social Security is expected to have income that is reasonably close to the expected cost over the next 75 years, tests of "long-range close actuarial balance" are applied. The failure of the program to pass these tests does not necessarily mean that insolvency is imminent. Rather, the tests warn policy-makers that changes are necessary to preserve the long-term financing of the program.

The 1983 Social Security amendments were enacted to provide a long period of adequate financing, but Congress acknowledged at the time that further attention would be needed in the future. It was clear that, even with the changes enacted, the trust fund would be exhausted shortly after the end of the 75-year projection period in 2058. Since 1983, the expected date of trust fund exhaustion has grown closer and numerous efforts have been undertaken to provide not just 75-year solvency but also sustainable solvency beyond the 75th year. The projected shortfalls in the most recent trustees' report reinforce the need to make further efforts to strengthen and reform the financing of the program for future generations.

President Bush made addressing Social Security's long-range financial problems an important item on his administration's 2005 agenda. Changes recommended by the President's Commission to Strengthen Social Security, including the introduction of individual accounts, did not gain wide support with either the public or in Congress, resulting in the issue being moved to a lower legislative priority. Debate on this issue will continue, however, because Social Security is one of the largest and most prominent federal programs, affecting nearly everyone in the United States, and its financial problems are real.

The American Academy of Actuaries' Social Insurance Committee believes that Congress should act soon to make changes to the program and bring Social Security back into long-range actuarial balance over the next 75 years and beyond. Enacting such changes soon is desirable, because doing so would provide significant advance notice to those affected, allowing future recipients to plan accordingly.

Summary of the Financial Status of Social Security

The OASDI program is financed essentially on a pay-as-you-go basis. That is, current taxes are used to provide current benefit payments. The retirement of the baby boom generation will greatly increase the growth of benefit payments.

In 2006, the payroll tax rate for the OASDI program is 12.4 percent (6.2 percent paid by employers and 6.2 percent by employees). This tax rate is not scheduled to increase. In addition to the payroll tax, the OASDI program receives interest income from trust fund assets and income from the taxation of Social Security benefits. At present the program's revenue exceeds its costs, with the result that the OASDI trust fund assets are increasing. However, total program costs, including benefit payments and administrative expenses, are projected to increase more rapidly than income.

Each year, the Board of Trustees of the Social Security trust funds reports on the program's financial condition. The trustees' report presents in great detail the trustees' assessment of Social Security's financial condition over the next 75 years. The trustees' report shows financial projections based on three sets of assumptions. The projections based on the intermediate assumptions are the trustees' best estimate. The intermediate projections from the 2006 report show the following:

• Key Dates

- In 2017, benefits and administrative expenses are first expected to exceed tax income; to continue full payment of scheduled benefits, the program would have to begin drawing upon trust fund assets, although initially it would be sufficient to draw only on current interest income.
- In 2027, total program income (including investment income) is expected to be less than total program outgo, thus requiring redemption of securities held in the trust fund and drawing down the dollar level of trust fund assets.
- In 2040, the Social Security trust fund is expected to become exhausted—that is, all accumulated assets will have been used up—and tax income alone will not be sufficient to pay benefits in full.

• **Actuarial Balance:** An actuarial deficit (negative actuarial balance) of 2.02 percent of taxable payroll is projected for the long-range 75-year period, 2006-2080. This represents the net difference between a summarized income rate of 13.88 and a summarized cost rate of 15.90, both expressed as a percent of taxable payroll. Social Security is said to be out of close actuarial balance over that period because the actuarial deficit is more than 5 percent of the summarized cost rate.

• **Magnitude of Changes Required:** Social Security has a long-range actuarial deficit of 2.02 percent of taxable payroll. In other words, if action were taken this year, long-range actuarial balance could be achieved if the combined employee-employer payroll-tax rate, currently 12.40 percent, were increased immediately by 2.02 percentage points to 14.42 percent. Long-range actuarial balance could also be achieved with an across-the-board benefit cut of about 13 percent for all current and future recipients.

• **Sustained Solvency:** Neither of these two methods, however, would keep Social Security in actuarial balance permanently. The projection periods for future trustees' reports will include years beyond 2080. In all years after 2080, projected expenses will significantly exceed projected income. Any pro-

SOCIAL SECURITY REFORM OPTIONS

posed change in Social Security intended to extend solvency beyond the 75-year projection period would certainly need to address those ongoing deficits. One way of doing this is to require, in addition to a positive actuarial balance over the projection period, that the trust fund balance, as a percentage of annual expenses, be stable or rising at the end of this period.

- **Cost vs. GDP:** The cost of Social Security (total benefits plus expenses) rises from 4.3 percent of the gross domestic product (GDP) today to about 6.3 percent by the end of the 75-year projection period.

Even though the projected date of exhaustion for Social Security's trust fund remains over three decades in the future, Social Security still faces long-term financial problems. This conclusion is consistent with those reached in reports from the past decade. While insolvency is not imminent, the program will have long-range financial shortfalls under the trustees' best-estimate assumptions. The fundamental demographic forces that are expected to cause long-term financial problems for Social Security have not changed.

Those who want to learn more about the financial condition of the Social Security program can view the OASDI trustees' report on the Social Security Administration's web site at <http://www.ssa.gov/OACT/TR/TR06/index.html> The Academy's Social Insurance Committee publishes an annual issue brief, *An Actuarial Perspective on the Social Security Trustees' Report*, which summarizes and explains the most important results presented in the trustees' report. The issue brief is available on the Academy's web site at http://www.actuary.org/pdf/socialsecurity/trustees_may06.pdf.

Social Security Basics

The following presents a brief outline of the most important features of the Social Security program as it is now constituted.

Earned Right and Universality

The Social Security benefit formula starts with the earnings on which the worker and employer have made contributions, as well as covered earnings from self-employment. This link between the earnings that have been taxed during a worker's career and the benefits the worker receives after retirement establishes an "earned right" in the minds of program participants, which is part of the foundation of the program's popular support.

Since Social Security's inception, the program has paid benefits to all those who have worked in covered employment for a sufficient period, and to their family members and beneficiaries, without regard to wealth or other income. This universality reinforces the idea of Social Security as an earned right, and is another part of the foundation of the program's popular support.

These twin concepts, earned right and universality, have distinguished the Social Security program from other government income-maintenance programs that provide benefits to more narrowly defined populations, such as welfare program (e.g., Temporary Assistance for Needy Families, food stamps, and Medicaid) beneficiaries. While these programs have all been subject to major overhauls or benefit cutbacks in recent years, Social Security has not changed significantly since 1983 and still retains its basic design from the 1930s.

Individual Equity and Social Adequacy

Investment is generally defined as putting money to use with an expectation of income or profit in return. In the Social Security context, the term individual equity has traditionally been used to describe the investment aspects of the program. If individual equity were the sole objective of the program, benefit levels would directly relate to contribution levels. For example, a retiring worker with twice the accumulated contributions of another worker in otherwise identical circumstances would receive twice the old-age benefit.

In the Social Security context, the term social adequacy has traditionally been used to describe the welfare and insurance aspects of the program. If social adequacy were the sole objective, benefits might have been set at the same level for all workers, regardless of earnings and contribution levels. They might also have been lower (or zero) for higher earners, or for those who had saved more for retirement.

Social Security was designed to contain elements of both individual equity and social adequacy. Social Security retirement benefits are higher for workers with a history of higher pre-retirement earnings (individual equity), but they provide a proportionately greater benefit for lower-income workers to help mitigate indigence among the elderly (social adequacy). The balance between these two elements has been maintained to varying degrees over the past 60 years.

The current system provides individual equity in two important ways:

- Receipt of benefits is based on a worker's age and employment history, and on the occurrence of events such as death, disability, and retirement. Benefits are paid without regard to need.
- The benefit formula provides higher benefits to workers with higher earnings or longer working careers, even though these workers are more likely to have pension and insurance coverage from their employers and may be more able to save for retirement on their own.

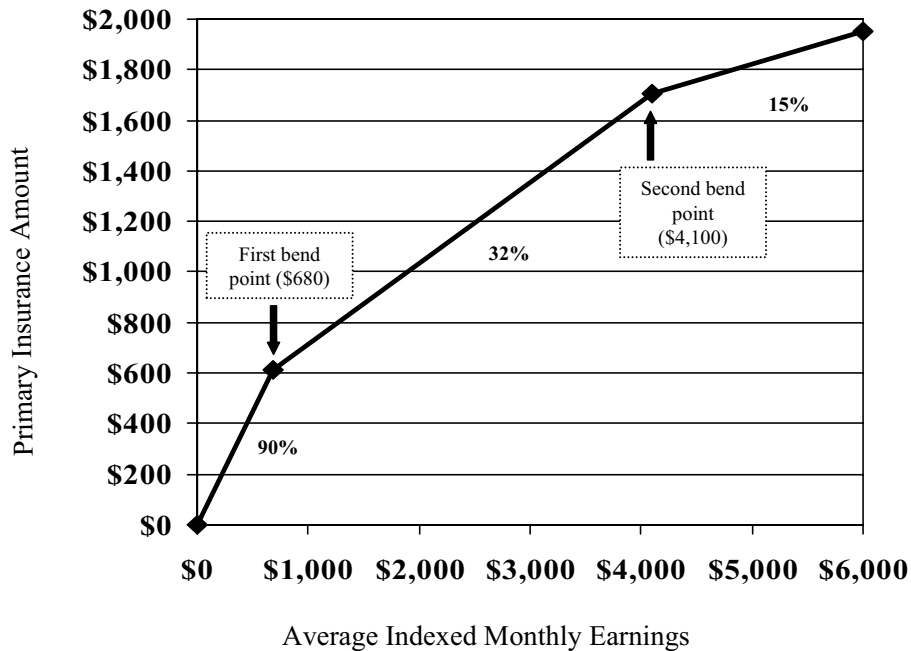
The current system serves the demands of social adequacy in the following ways:

First, the amount of the basic “pension” (called the primary insurance amount, or PIA) is skewed to favor lower-paid employees. A worker’s PIA is determined by his or her career-average earnings. Before averaging, earnings from years before the worker’s 60th birthday are indexed to changes in the national average wage, up to the year the worker turns 60. Earnings at ages 60 and later are included in the calculation of average earnings at nominal value. The 35 highest indexed earnings are averaged and then divided by 12, and the resulting amount is called the average indexed monthly earnings (AIME). For workers reaching age 62 in 2006, the PIA is calculated using the following formula:

- 90% of AIME up to \$680, plus
- 32% of AIME from \$680 up to \$4,100, plus
- 15% of AIME exceeding \$4,100.

The PIA formula percentages (90, 32, and 15) remain the same from year to year, but the “bend points,” the dollar amounts where the percentages change (\$680 and \$4,100), increase each year based on increases in the national average wage. The PIA is indexed to changes in the “consumer price index for urban workers and clerical workers” (CPI-W) beginning with December of the year the worker attains age 62, and this indexing continues once a worker has retired. Indexing earnings to changes in the national average wage helps to ensure that initial Social Security benefits incorporate changes in living standards over a worker’s career, and indexing benefits to changes in the CPI helps to ensure that the buying power of Social Security benefits remains the same after a worker begins receiving benefits.

Chart 1: PRIMARY INSURANCE AMOUNT FORMULA FOR PERSONS TURNING AGE 62 IN 2007



Examination of the PIA formula shows that Social Security benefits replace a far higher percentage of pre-retirement earnings for lower-paid workers than for higher-paid workers. The following table makes that comparison at age 65 for workers with four hypothetical wage histories both currently and projected to 2080. Note that most of the decrease in the replacement percentage in 2080 is due to scheduled increases in the normal retirement age.

SOCIAL SECURITY REFORM OPTIONS

Average Wage Level	Replacement Percentage	
	2006	2080
Low (about 45% of each year's national average wage*)	56%	49%
Medium (about 100% of each year's national average*)	41%	36%
High (about 160% of each year's national average*)	35%	30%
Maximum (the maximum Social Security taxable wage)	29%	24%

*The estimated national average wage in 2006 (using intermediate assumptions) is about \$38,696.

In addition to favoring lower-paid workers, the system favors less healthy workers and workers with spouses and dependent children:

- The worker's spouse is eligible to receive an amount equal to 50 percent of the worker's benefit while the worker is alive, and generally 100 percent after the worker's death (provided that, in both cases, the spouse is not entitled to a higher benefit based on his or her own earnings history). Benefits extend to divorced spouses to whom the worker was married for at least 10 years. These benefits are paid without any reduction in benefits to the worker or to other family members.
- If a worker is unable to work due to disability, Social Security may pay disability benefits to the worker and family members.
- If a worker dies before becoming eligible for retirement, Social Security may pay survivor benefits to the worker's spouse and other family members.

The social adequacy features of Social Security can be viewed as a web of cross-subsidies among various groups of participants. Members of groups that are net subsidizers often complain they don't get their money's worth from their Social Security contributions, although they often do not realize the main reason is they are providing subsidies. For example, high-income couples with two wage earners are generally net subsidizers, and would likely not realize a high implicit return on their Social Security contributions. Low-income couples with one wage earner are generally net subsidizees, and may in some circumstances receive more than their money's worth from their Social Security contributions. Because classes of subsidizers and subsidizees overlap, determining whether any particular worker is a net subsidizer or a net subsidizee can be difficult.

Financing

The primary source of Social Security's financing is a payroll tax on the earnings of covered workers up to a maximum annual amount, \$97,500 in 2007. The payroll tax rate for the OASDI program is 12.4 percent, 6.2 percent paid by employers and 6.2 percent by employees. Self-employed workers pay both the employer and employee shares. This tax rate has remained the same since 1990 and is not scheduled to increase. In addition to the payroll tax, the OASDI program receives income from the taxation of Social Security benefits and from investment earnings on assets in the trust funds.

The income tax that finances most government programs other than Social Security and Medicare is progressive. That is, the rate of taxation applied to a taxpayer's income in a given year starts at zero for the first dollars of income and increases as income passes specified dollar thresholds, or brackets. In contrast, the Social Security payroll tax is a level rate on earnings up to the maximum taxable amount and does not apply to non-wage income, such as investment earnings. Some people say, for this reason, that the Social Security payroll tax represents an unfair burden on the poor, who pay an equal or higher portion of their total income to Social Security than the wealthy. However, because the benefit formula is progressive, pro-

viding proportionately higher benefits to workers with lower career earnings, as described above, the overall program contains progressive elements.

In 1972, Congress stated its intention that Social Security be financed on a pay-as-you-go basis. This means that income from the payroll tax and taxation of Social Security benefits would be just sufficient to pay benefits and administration expenses and to maintain a small trust fund as a buffer against short-term fluctuations in income and expenses. Under such a system, income from investment earnings would be negligible compared to other program income. Benefit payments are expected to increase substantially beginning in 2008 when the first baby boomers reach the eligibility age for old age benefits. To maintain a true pay-as-you-go financing regime, the payroll tax would need to change periodically to track changes in the benefit payments.

However, when Congress adopted the last major changes to Social Security in 1983, it elected to maintain a level tax rate beginning in 1990. This level tax rate was intended to keep the system in actuarial balance through the end of the 75-year actuarial projection period, which at that time ended in 2058. Because benefit payments were expected to be lower during the first part of this period and higher later, the inevitable result has been that, since 1983, the system has built up a sizable trust fund, and will continue adding to the trust fund for many more years. Currently, about 90 percent of Social Security's tax income goes to pay benefits, while the rest accumulates in the trust funds. The 2006 trustees' report projects that the trust funds, now containing \$1.9 trillion, will reach a peak of over \$6 trillion in 2027, and be drawn down to zero in 2040, about a decade and a half earlier than projected in 1983.

Some people say that, because of this large trust fund build-up, Social Security's financing is no longer pay-as-you-go, but rather includes a significant degree of pre-funding. Whether one characterizes Social Security's financing as pay-as-you-go or partially pre-funded is a matter of personal preference. The important point is that the ongoing gradual build-up of assets in the trust funds is expected to be a temporary phenomenon, which will be followed by a more rapid draw-down to zero unless changes are made to the program.

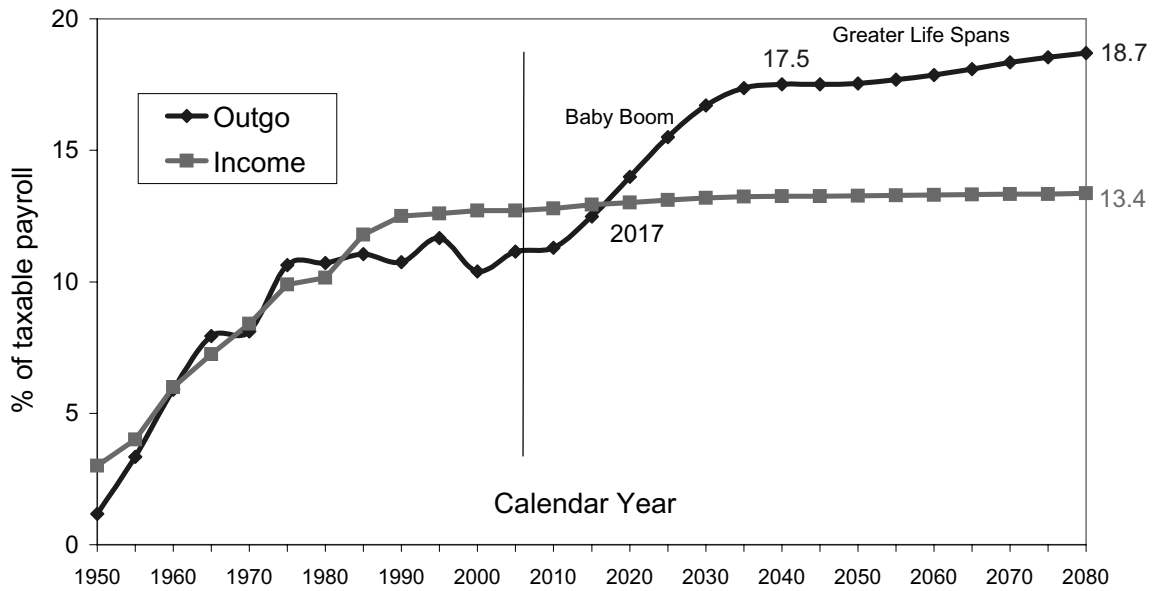
Social Security trust fund assets are invested almost entirely in non-marketable special-issue U.S. government securities that represent loans to the U.S. Treasury's general fund. Thus, one result of the trust fund build-up has been that Social Security is financing a portion of the deficit spending from the general fund. When the trust funds are drawn down, the Treasury will need to find an alternate source for this financing. For this reason, some individuals are troubled by the large trust fund accumulations and are resistant to program changes that may increase Social Security financing of the rest of the government.

Chart 2 illustrates expected program income and outgo as determined in the 2006 trustees' report. Program income (excluding investment income) is expected to exceed program outgo until about the year 2017 and is expected to be much less than program outgo after that time. This chart shows that immediate increases in program income or immediate decreases in program outgo will produce larger trust fund accumulations in the near-term. This can be avoided by delaying any tax rate increases or benefit decreases to 2017 or later, in which case they would need to be much larger than if the changes were made effective immediately.

Chart 2 also shows that the rate of increase in scheduled expenditures is expected to decline once the wave of baby boomer retirements has ended. After increasing by more than 6 percent in 35 years, from a current level of 11.22 percent of taxable payroll to a projected 17.51 percent in 2040, scheduled expenditures are expected to increase by barely more than 1 percent of taxable payroll over the next 40 years, to 18.74 percent in 2080. Therefore, a level tax rate can track expenditures more closely in the future than now. After the current trust fund build-up is drawn down, it is not likely that a surplus of comparable size would develop in the future as long as the defined benefit structure is maintained.

SOCIAL SECURITY REFORM OPTIONS

Chart 2: SOCIAL SECURITY INCOME AND OUTGO
INTERMEDIATE ASSUMPTIONS



Source: 2006 Report Table IV.B1. It also has above numbers on pessimistic and optimistic assumptions

Once the country moves beyond the baby boomer hump, Congress could reduce the rate of increase in expenditures still further, or even eliminate the increase altogether, by designing benefit changes that offset the projected increases in expenditures. This would allow for a return to a more pure pay-as-you-go financing approach while maintaining a level tax rate. The desirability of such a strategy is open to debate. Some people believe the current trust fund build-up has encouraged government overspending by giving the Treasury access to a huge pool of cash without the necessity of external borrowing or raising income taxes. However, the alternative of investing trust fund assets in private securities may not be appealing either, where the emergence of a new major source of assets for investment could distort the capital markets. On the other hand, setting as a goal a level rate of expenditures as a percent of taxable payroll could unduly constrain program design, so any benefit change that favors one group of participants would need to be offset by a change that disadvantages another group. All these factors must be weighed carefully when addressing Social Security's long-term financial problems.

Changes Within the Current Structure

Assuming that the existing defined benefit structure and investment policy of the OASDI program is maintained, there are two basic options for restoring financial soundness: increase tax income or reduce benefit outgo. In general, increasing taxes has the effect of transferring buying power from workers to beneficiaries, while reducing benefits enables workers to retain buying power at the expense of beneficiaries. A combination of tax changes and benefit changes could be enacted, so the impact of any reform is shared by workers and beneficiaries.

Tax Changes

Increase the Payroll Tax

Payroll tax rates have been raised many times in the past. The tax rate for Social Security is 12.4 percent, split equally between employers and employees. In theory, changes to the tax rate could solve as much of the long-range problem as policy-makers choose. Also, the changes could be tailored to meet Social Security's cash-flow needs.

When looked at from a macro-economic perspective, Social Security benefit payments are expected to increase much more slowly than the total output of the U.S. economy. Therefore, even if workers were required to pay the higher payroll taxes necessary to place Social Security on a sound financial footing, their net incomes after payroll taxes would still continue to increase as long as the payroll tax increase is phased in over a sufficiently long period. However, the costs of other social insurance programs that benefit Social Security beneficiaries, particularly Medicare and Medicaid, are increasing much more rapidly and will also require additional funding in the future unless eligibility and/or benefits are drastically reduced.

As noted above, immediate tax increases would increase the current surplus, eventually increasing the trust funds, increasing loans to the general Treasury, and increasing the amount of bonds to be redeemed in the future.

Increase the Limit on Taxable Earnings

About 85 percent of earnings in covered employment is below the 2007 limit on taxable earnings of \$97,500. This limit also applies to earnings taken into account in the benefit formula. This limit could be raised by about 25 percent so that Social Security again taxes about 90 percent of all earnings in covered employment. This proposal would eliminate about 25 percent of Social Security's deficit. Alternatively, some of the payroll tax could be paid on all income (similar to Hospital Insurance (HI) program – Medicare). Removing the limit for taxes on both employees and employers but retaining the limit for calculating benefits would eliminate the long-range actuarial deficit entirely and leave a small surplus. Removing the limit both for taxes and calculating benefits eliminates most, but not quite all, of the long-range actuarial deficit.

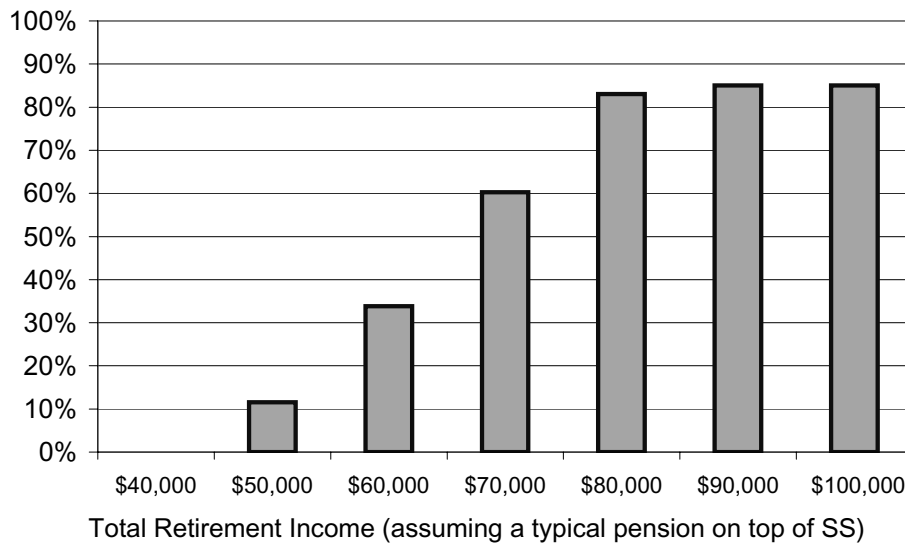
If adopted right now, such proposals would increase the projected trust fund build-up, because income would increase immediately. However, any resulting benefit increases would be phased in gradually over a long period. Finally, accounting for earnings with no limit in the benefit formula raises questions about the appropriateness of the government providing very high retirement benefits to workers with the highest incomes.

Increase Taxation of Benefits

The tax on a person's benefit is based on the annual Social Security benefit and income from other sources. If a recipient's adjusted gross income exceeds a specified threshold, a portion of the Social Security

benefit is added to taxable income. This threshold is \$25,000 for a single person and \$32,000 for a married couple filing jointly. Up to 50 percent of the Social Security benefit is included in taxable income for recipients whose applicable income exceeds this threshold but is less than \$34,000 for a single person and \$44,000 for a married couple. For recipients whose applicable income exceeds this higher threshold, up to 85 percent of the Social Security benefit is included in taxable income. Revenue from the 50-percent taxable portion goes to the OASDI trust funds, while additional revenue from the 85-percent taxable portion goes to Medicare’s HI Trust Fund. All four threshold amounts, unlike most dollar limits and thresholds in Social Security and tax law, are not indexed to either price inflation or average wage growth.

Chart 3: PORTION OF MARRIED COUPLE’S SOCIAL SECURITY BENEFIT THAT IS TAXABLE



Because the dollar thresholds are not indexed, 85 percent of most participants’ benefits will ultimately be subject to income tax under current law. The revenue that could be raised through additional benefit taxation is relatively modest. Taxing Social Security benefits and benefits from private pension plans similarly (i.e., treating benefits as ordinary income except for that portion that represents the recovery of previously taxed participant contributions) would reduce Social Security’s long-range actuarial deficit by about one-sixth. Taxation of benefits can be viewed as a benefit cut, rather than a tax. Also, it can be regarded as an alternative to a means test that preserves the “earned right” to benefits but treats them more like private pensions.

Expand Coverage

This tried-and-true method of generating additional income has little potential for solving Social Security’s projected long-range problem today. The remaining non-covered groups are small and very difficult to cover, for a variety of reasons, including constitutional concerns, because most non-covered employees work for religious organizations or state and local governments. If all of the non-covered groups could be covered, the effect would be to eliminate about one-tenth of the long-range deficit.

Benefit Changes

Reduce Benefits Across the Board

A benefit cut of about 13 percent for all current and future recipients would increase the trust funds greatly today, and bring 100 percent solvency to Social Security over the next 75 years, but would not make Social Security sustainable thereafter. This is because benefits in 2080 (even with a 13 percent reduction) would still be much larger than Social Security's annual income, and would quite quickly exhaust the one year of benefit payments in the trust funds in the 75th year.

Raise the Normal Retirement Age

The normal retirement age (NRA) is the earliest age at which unreduced old-age benefits are payable. For 60 years, starting in 1940, the NRA was 65. The monthly benefits payable to workers who elect to receive benefits before the NRA are reduced to compensate for the resulting longer payout period. Benefits are payable as early as age 62, and the proposals to increase NRA often keep the earliest retirement age at 62.

In 1983, Congress enacted increases in the NRA, partially recognizing the fact that life expectancy had increased substantially since 1940. As a result, current law increased the NRA gradually to age 66 for workers born in 1943 (they reached the earliest eligibility age for retirement benefits, age 62, in 2005). The NRA remains at age 66 for 12 years and then gradually increases to age 67 for workers born after 1959 (who will reach age 62 in 2022 and later).

For those seeking to level out program expenditures after the retirement of the baby boomers, further changes to the normal retirement age could be designed with that purpose in mind. For example, life expectancy is projected to continue increasing, although the rate of increase is the subject of much debate among actuaries and demographers. Based on the assumptions in the trustees' report, the NRA would need to be increased by about one month every two years in order to offset the effects of increasing life spans on the system. That could be accomplished either by adopting a fixed schedule of increasing retirement ages or by indexing the NRA to increases in life expectancy.

Raising the NRA would reduce Social Security's long-range actuarial deficit by about one-third to two-thirds, depending on how soon and how fast it is increased. However, concern has been raised for workers in strenuous jobs, who might not be able to continue working beyond the current normal retirement age. Increasing the NRA is really a benefit reduction, because benefits would be available at the same ages after the change but at reduced amounts. The big difference is that raising the NRA does not affect disability benefit amounts, while reducing the formula does lower them.

Raising the early-retirement age would not improve Social Security's financial position much because early-retirement benefits are already reduced to the actuarial equivalent payments. However, if the NRA were raised, but not the early-retirement age, the effects on benefit adequacy of greater benefit reductions at the earliest retirement ages become an important factor.

Change the Benefit Formula: PIA Formula Percentages

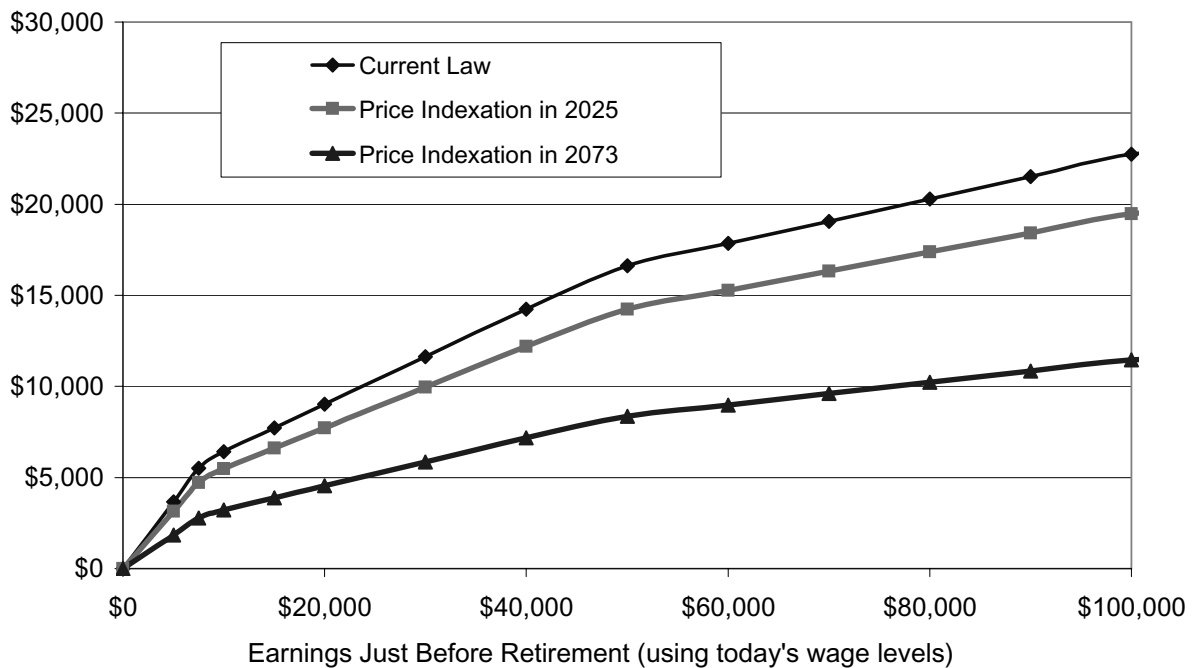
One way to improve Social Security's financial condition is to gradually reduce the current PIA formula percentages (90 percent, 32 percent, and 15 percent) while keeping the ratios between the factors constant. For instance, the three PIA formula percentages could be reduced by multiplying each factor by 0.99 each year. Under this scenario, after 10 years had passed, the PIA formula would use percentages of about 81, 29, and 14. This approach would maintain the progressive nature of the program but reduce the program's adequacy, especially for lower earners and their families.

SOCIAL SECURITY REFORM OPTIONS

The change described above would reduce newly awarded Social Security benefits by about 1.1 percent per year compared with the current formula. Because wage inflation has historically averaged about 1.1 percent higher than price inflation, under this approach initial Social Security benefits would be expected to keep pace with inflation but fall behind in replacing pre-retirement income. For example, the replacement ratio (Social Security benefits divided by pre-retirement income) for low-income workers would decline after 10 years from 60 percent to 54 percent, although the buying power of a worker's Social Security benefits would be expected to remain about the same as benefits awarded today under the current formula. However, a worker's Social Security benefits would not reflect the real (adjusted for inflation) increases in wages during those 10 years.

Reducing the PIA formula percentages by 1.1 percent each year without a specified end date would come close to bringing Social Security's long-run finances back into balance, but would dramatically reduce replacement rates from the levels that would result from the formula under current law. For example, the replacement ratio of low-income workers would be roughly cut in half in 62 years. This proposal is known as *price indexing*, and its effects are shown in the following graph.

Chart 4: ANNUAL SOCIAL SECURITY BENEFITS AT AGE 65



Alternatively, the PIA formula percentages could be selectively reduced (for example, only 32 percent and 15 percent but not 90 percent). This would increase the progressiveness of the formula while maintaining the level of adequacy for very low earners. This approach was included in the individual account (IA) option considered by the 1994–96 Social Security Advisory Council.

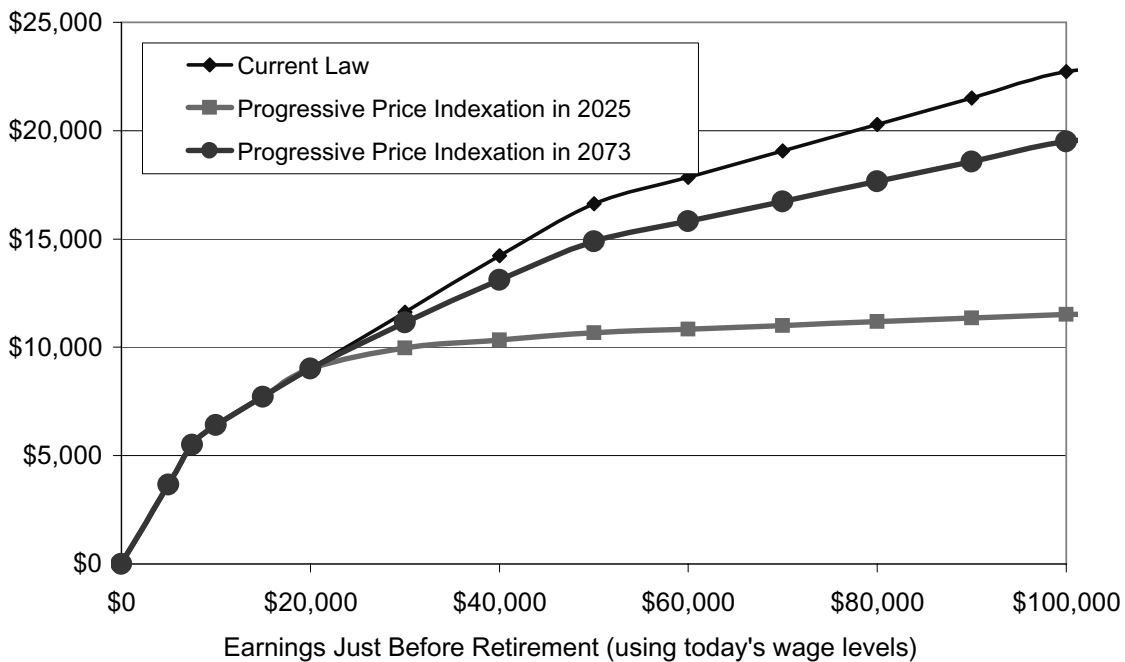
Some proposals in the late 1990s went even further by guaranteeing Social Security benefits, at least equal to the poverty level, to low-wage workers. Such a minimum benefit could apply to workers with at least 30 years in covered employment, with proportionately lower benefits for workers with 20 to 30 years. Some critics have noted that such an enhanced benefit could exceed a covered worker's pre-retirement earnings, discouraging workers eligible to retire from continuing to work and disabled workers from returning to work. A possible solution would be to cap the minimum at the person's average indexed wage. More fundamentally, some people could view the addition of a guaranteed minimum benefit as changing

the nature of Social Security from an income replacement program to an anti-poverty program. This could erode public support for the system.

More recently, attention was focused on *progressive price indexing*, which applies price indexation to workers at the maximum career average wages, but holds harmless workers at the lowest average wage levels. The proposal introduces a new bend point, which would be around \$20,000 per year if made part of the 2006 PIA formula. This amount was chosen so that 30 percent of covered workers would have total AIME below this level (and would not be hurt by this proposal). The 32 percent and 15 percent factors would be reduced as necessary (recalculated each year, rather than indexed in the traditional sense) so that the benefit of a worker who has always earned the maximum taxable amount would be the same as if wage indexing of the initial benefit had been replaced by price indexing.

The effect of these changes would be to preserve current-law benefits for the lowest paid 30 percent of covered workers and introduce price indexing for workers who have always earned the maximum taxable amount or above, with a blending of these results for workers who fall in between. Over time, these changes would dramatically increase the progressivity of the benefit formula. For example, by around 2073, the replacement ratio for low-paid workers would remain the same as under current law, but would be cut in half for workers who had always earned the maximum taxable amount. By 2089, the benefit would be flat, thus changing the nature of Social Security (i.e., workers with larger wages would have larger payroll taxes, but would get the same benefit amount as lower wage workers). On the other hand, the proposal would eliminate about three quarters of Social Security's deficit.

Chart 5: ANNUAL SOCIAL SECURITY BENEFITS AT AGE 65



Change the Benefit Formula: Bend-Point Indexing

The bend points (\$680 and \$4,100 in 2007) used in the PIA formula are indexed to changes in the national average wage level in order to maintain approximately the same Social Security replacement rates from one generation to the next for workers with equivalent earnings levels. Another way that the benefit amounts can be reduced is to change the way the bend points are indexed. If, for example, the bend points were indexed to the generally slower changes in the CPI, over time the bend points would become pro-

gressively lower than their levels under current law because, in most years, prices increase less than average wages. This would mean that smaller portions of each worker's AIME would be multiplied by the 90 percent and 32 percent in the PIA formula, and a greater portion by 15 percent, thus reducing the worker's PIA.

Such changes would have the greatest effect on high-paid workers, but over time the bend points, particularly the lower one, would become so small relative to prevailing wages that even low-paid workers would incur severe benefit cuts. To mitigate this problem, some proposals would retain wage indexing for the lower bend point, and switch to price indexing only for the higher bend point. While preserving benefits at current-law levels for the very low paid, this would progressively narrow the gap between the two bend points, so that the 32 percent factor would apply to an increasingly smaller portion of the AIME. Ultimately, the lower bend point would overtake the higher one unless wage indexing were restored to the higher bend point at some time in the future.

Change the Initial Benefit Formula: AIME

As stated previously, AIME amounts, on which benefits are now based, are calculated over an averaging period of the highest 35 years of earnings. Some proposals would increase the averaging period to 38 or 40 years. This change would reduce projected future benefits for individuals with shorter work histories. For example, the 40-year proposal would reduce benefits an average of 3 percent and would eliminate about a quarter of the 75-year long-range actuarial deficit.

This proposal also would strengthen the relationship of lifetime contributions to benefits and increase incentives to extend working careers, thus increasing the individual equity aspect of the program. However, increasing the averaging period would have especially adverse consequences for individuals who have extended periods when they do not work for wages, particularly workers (most frequently women) who leave paid employment to care for children. One modification that addresses this concern is to allow dropout years for childcare, although the practicality of administering such a provision is open to question.

Other proposals would change the way earnings are indexed to account for inflation, from the time they are earned up to age 60. For example, instead of indexing by changes in the national average wage, earnings would be indexed by changes in the consumer price index. This change would be fully phased in within 40 years as today's youngest workers retire. Because prices generally increase more slowly than wages, this change would have the effect of reducing workers' AIMEs in almost all circumstances. However, this change would have a smaller effect than reducing the bend points or the PIA formula percentages as described above.

Reduce Cost-of-Living Adjustments (COLAs)

A 1996 congressionally-appointed commission chaired by economist Michael Boskin suggested that the annual increase in the CPI was overstated by 1.1 percent. In response, the Bureau of Labor Statistics has modified its methodology in recent years to account for consumers' tendency to substitute, among similar products, those whose prices have increased more slowly for those whose prices have increased more rapidly. Most economists agree this adjustment has greatly reduced, if not eliminated, the overstatement of inflation.

However, some economists think the CPI still overestimates annual increases in the cost-of-living. They suggest that using a "superlative CPI," which also takes into account the tendency for consumers to substitute products whose prices have increased more slowly for those whose prices have increased more rapidly (even among unrelated categories of goods and services), would lower the annual increase in CPI by an estimated 0.22 percent. This proposal would reduce Social Security's deficit by about 20 percent.

Others have suggested using, for Social Security purposes, a separate CPI that uses the typical basket of goods and services purchased by retirees. An experimental CPI-E based on a typical basket of goods and services for retirees was constructed by the Bureau of Labor Statistics. Over the past 15 years, it has been approximately 0.3 percent higher per year than the CPI-W that is currently used to index Social Security benefits.

If a change in the COLA were enacted, it could be instituted quickly without radical restructuring of the program, and unlike other changes, it could be applied to people already retired. That would provide a more immediate improvement to Social Security's finances. Some policy-makers suggest that any reform should allocate benefit reductions among all program participants, including current retirees.

On the other hand, it is more difficult for retirees to handle changes, because much of their income is often fixed and most of them cannot return to work. A reduction in the COLA would have a cumulative effect on existing beneficiaries. For example, if benefits were cut 1/2 percent per year, the cumulative reduction would be more than 5 percent after 10 years, and about 9 percent after 20 years. This change would eliminate about 40 percent of Social Security's 75-year deficit. However, such a change would have its greatest impact on the very elderly, a group that already has a high level of poverty. If a change to the CPI overstates the CPI error, it could reduce the standard of living of lower-income beneficiaries and others who derive most of their income from Social Security. However, if the economists are correct that the CPI overstates inflation, older individuals have been enjoying cumulative increases that are higher than real inflation.

Double-Deck Benefit Formula

Another option considered by the 1994-96 Advisory Council would replace the current benefit formula with a "double-deck" approach. The first deck would provide a flat dollar amount for all workers with a specified minimum number of years of earnings, regardless of the amount of earnings. The second deck would provide a specified percent of average earnings (AIME). The first deck would represent the adequacy component of the formula (each worker would receive the same floor of protection), while the second deck would provide individual equity (each worker would receive the same rate of return on payroll tax contributions).

Both proponents and opponents of this approach agree that it clearly identifies the individual equity and social adequacy components of the benefit structure. Proponents find that this is a desirable end in itself and would allow elected officials greater flexibility to make explicit decisions about the balance between social adequacy and individual equity. Opponents believe that the approach would diminish support for the Social Security program in general, particularly among the more highly paid. They also believe that the double-deck approach would increase demands for general revenue financing and means testing of the first deck or diminish the generosity of the first deck through less than full wage indexing. In their view, the consequence of a double-deck approach would, over the long term, erode the balance between the program's social adequacy and individual equity features. Ultimately, it would reduce the Social Security program to a plan with benefits proportional to earnings plus a diminishing (in terms of then-current wage levels) welfare benefit.

Change Auxiliary Benefits

The present structure of Social Security auxiliary benefits was established when single-wage-earner families still predominated. At normal retirement age the lower-paid, or non-working, spouse receives 50 percent of the higher-paid spouse's benefit (PIA) unless the former can receive a higher benefit based on his or her own earnings history. When one spouse dies, the surviving spouse receives the greater of 100 percent of the deceased spouse's benefit or the surviving spouse's own benefit. Social Security also pays

benefits to other family members in certain circumstances, including former spouses, dependent children, and parents.

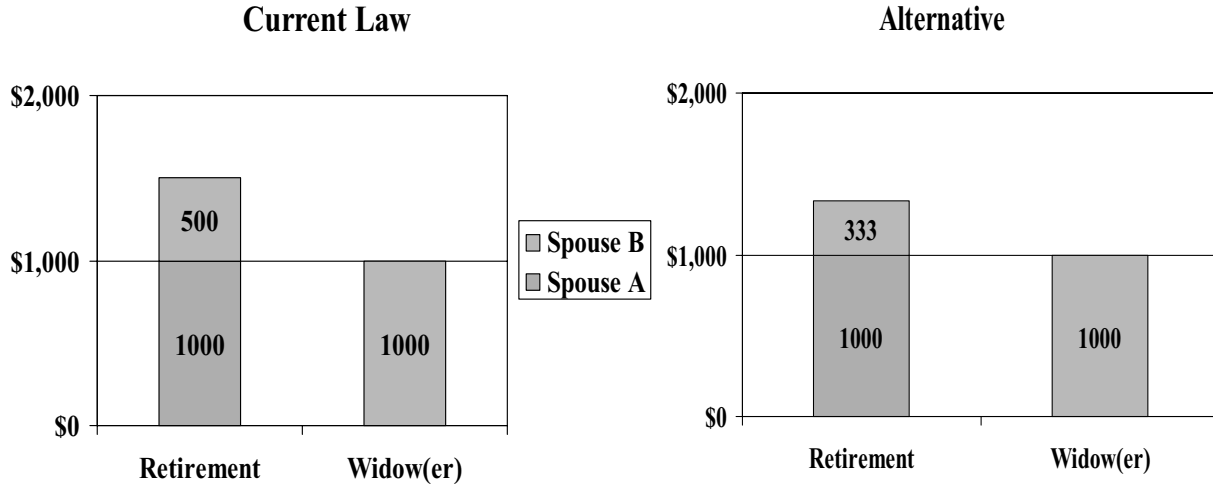
Many critics have pointed out that this structure is unfair to two-earner families. For example, suppose the two spouses have similar earnings. When both spouses are alive, the couple together receives twice the benefit either would receive alone. If one spouse had never worked in covered employment, the couple would still receive one and a half times the benefit the working spouse would receive alone. Thus, the two-earner couple pays twice the taxes of the one-earner couple, but receives benefits only a third higher. The inequity is greater after one spouse dies. In the two-earner couple, the surviving spouse receives about half of what both received as a couple. In the single-earner couple, the surviving spouse receives two thirds of what both received as a couple, which is the same amount as the surviving spouse of the two-earner couple. Thus, after the death of one spouse, the two-earner couple gets no benefit from the additional payroll taxes they paid.

Many proposals have been made to modify the structure of auxiliary benefits for family members. These proposals are often motivated at least as much by the desire to achieve greater equity between single-earner and two-earner families as to address Social Security's financial problems. For example, reducing the benefit for a non-working spouse (while both are living) from 50 percent to 33 percent of the PIA would eliminate about 10 percent of OASDI's 75-year long-range actuarial deficit. It would also partially address the concern of two-earner couples whose second income buys little, if any, in additional benefits. Further, if the survivor benefit remains 100 percent of the working spouse's benefit, the survivor would receive 75 percent rather than two thirds of the couple's benefit. This is in line with studies that show surviving spouses require about 75 percent of the income both spouses were receiving to maintain the same standard of living.

The 1994–96 Social Security Advisory Council developed a more complex proposal for restructuring auxiliary benefits. This proposal would also reduce spousal benefits to 33 percent of the primary worker's PIA and maintain the current survivor benefit rules, under which the survivor receives the greater of the survivor's own worker benefit or the deceased spouse's worker benefit. The proposal would also provide a minimum benefit of 75 percent of the couple's combined benefit to the survivor. This would increase survivor benefits for many working spouses, particularly in situations where the spouses' career earnings are comparable. This proposal would improve equity between one-earner and two-earner couples through a combination of benefit increases and decreases, but at a net cost of increasing the estimated long-range cost of OASDI by about 0.18 percent of payroll, according to actuarial studies prepared for the Advisory Council. Placing a cap on the 75 percent survivor benefit guarantee equal to the average survivor benefit can reduce this cost. With the cap, the guarantee would primarily help low and middle-income workers who otherwise might have less adequate survivor benefits.

Chart 6: SOCIAL SECURITY SPOUSAL BENEFITS*

Spouse A earns \$25,000
Spouse B earns \$0**

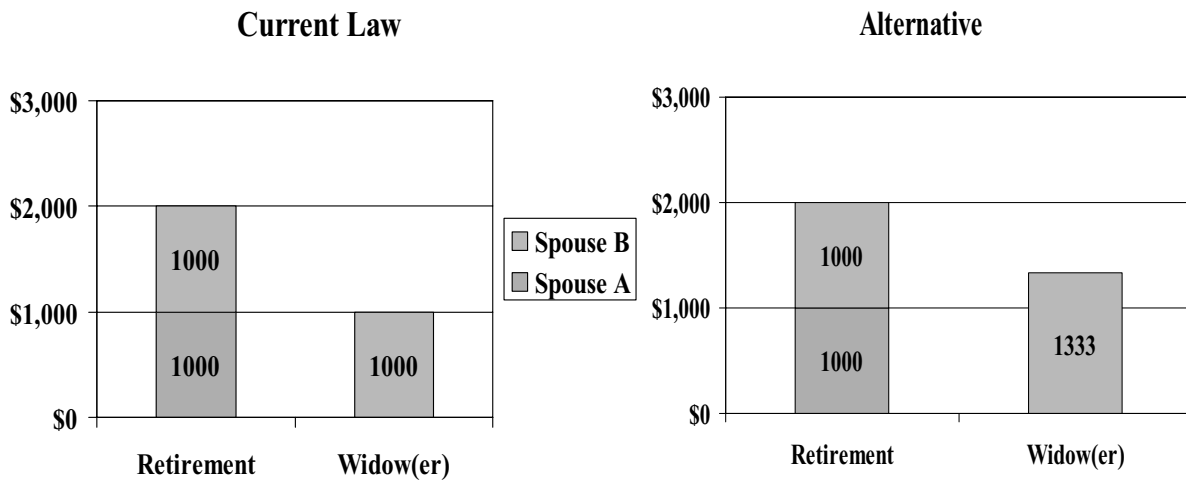


* Divorced Spouse may be eligible if married for 10 years (may not be payable if remarried before age 60)

**Even if Spouse B has average annual income of \$6,000, (s)he'll get 50% (33%) of Spouse A's benefit, because it is greater than the benefit based on B's own earnings record. At A's death, B's benefit will be 100% of A's benefit.

Chart 7: SOCIAL SECURITY SPOUSAL BENEFITS*

Spouse A earns \$25,000
Spouse B earns \$25,000



* Divorced Spouse may be eligible if married for 10 years (may not be payable if remarried before age 60)

Other Alternatives Within the Defined Benefit Structure

Investment of Trust Fund Assets

Social Security trust fund assets are invested almost entirely in non-marketable special-issue U.S. government securities that represent loans to the U.S. Treasury's general fund. Those bonds pay market rates of interest. But many analysts believe that greater returns could be achieved, on average, in the more volatile equity markets. For example, investing 40 percent of trust fund assets in equities, phased in over 15 years, would reduce the 75-year deficit by about 40 percent, assuming a 6.5 percent real rate of return over the long term. Investment procedures could be changed to allow such investment, with appropriate safeguards against market manipulation through, for example, the use of indexed funds.

Still, the vast sums involved under the present-law tax rates could have unintended effects on the securities markets. Initially, the trust funds would be major purchasers of equities, but later they would become major sellers. Further, the Treasury would have to find alternate buyers for government bonds that otherwise would have gone into the trust funds. Economists have debated the potential effects of such changes on the prices of both equity and non-equity securities, and the reaction of other investors to these changes.

Of course, the potential additional income from changing the investment procedures would depend on the size of the fund. If, at some time in the future, as seems likely, the program is returned more closely to pay-as-you-go financing, the additional income would constitute a smaller portion of program financing.

Means Testing

Social Security expenditures could be reduced over the long term by applying a means test to retired workers and their dependents and beneficiaries otherwise eligible for benefits under the program. Means testing would reduce or eliminate benefit payments to participants whose income or assets exceed specified thresholds. There are many ways this could be done. For example:

- An income test could take into account all income or only “wealth-related” income, such as investment income or income from a business;
- Similarly, an asset test could include all assets or exclude widely held assets such as houses and cars;
- The means test could be applied one time when benefits begin or at regular intervals after benefits begin;
- The test could eliminate benefits altogether for those exceeding the threshold, or phase out benefits gradually as income or assets increase beyond the threshold;
- The Medicare reform package enacted by Congress in 2003 includes means testing provisions, which will increase the Part B premium for high-income retirees and base the cost to the participant of the new drug benefit in part on income and assets.

Several proposals for applying means testing to Social Security benefits have been made, but the proposal that has gained the most public attention came from the Concord Coalition, a non-partisan group of fiscal conservatives. The Concord Coalition made its proposal, which it calls “affluence testing,” in the mid-1990s and has not updated it recently, so some of the specific dollar thresholds are now outdated. Under affluence testing, Social Security benefits would begin to be reduced if family income exceeds \$40,000, with reductions reaching 85 percent if family income exceeds \$120,000.

A number of objections have been raised to the concept of means testing, including: erosion of public support for Social Security, particularly among the wealthy; disincentives from savings and incentives for consumption; administrative complexity; and the potential for fraud and abuse. Many of the same results could be achieved more simply through changes in the benefit formula described above or through changes in the income taxation of Social Security benefits.

General Revenue Financing

Many social insurance programs in other countries receive some financing from general treasury funds, and that approach could be adapted for the U.S. Social Security program. For example, some have suggested that general revenue financing should pay for the subsidies that Congress gave to the early beneficiaries of the system who received more than they paid in. Because general revenues come from a progressive tax base, this form of financing would be more progressive than the current payroll tax, which many contend is regressive because it does not tax income over the maximum taxable wage base.

General revenue financing would require significantly higher income tax collections and/or government borrowing. Alternatively, new non-payroll-based taxes, such as a value-added tax (VAT), could be earmarked for the program. Although general revenue financing could solve Social Security's financing problems completely, it would compromise the basic principle of a "self-supporting" program that is financed by participants who "earn" their right to benefits. It might also be too tempting to increase the general revenue going to Social Security when other solutions prove more difficult to enact.

Individual Accounts

Many recent Social Security proposals call for American workers to accumulate contributions in individual accounts as a source of retirement income. While creating individual accounts will not by itself address Social Security's financial problems, proponents of this approach cite the following advantages: Workers would have direct control and ownership of their accounts; workers would be able to obtain a better return on their Social Security contributions by investing all or part of their accounts in the stock market; and this additional investment would give the economy a boost, making it easier for future generations to bear the burden of Social Security and other social insurance programs. Opponents cite the inability of most workers to take total control of their own retirement planning, the greater uncertainty of benefits tied to the performance of the securities markets, and the shift in emphasis from social adequacy toward individual equity inherent in a system based on individual accounts. The following presents a brief outline of the most important issues in designing an individual account program for Social Security.

Individual Account Basics

Types of Design

When most people think of individual account plans, they have in mind employer-sponsored plans such as 401(k)s and the Thrift Savings Plan (TSP) for Federal employees. These are all "pure" individual account plans: They have been individual account plans from inception; all contributions made by or on behalf of participants go into individual accounts; all investment earnings and administrative expenses are allocated to individual accounts; the individual accounts comprise all plan assets; and each participant's benefits are paid exclusively from his or her account. Under a pure individual account plan, benefits automatically track income from the payroll tax and investments, so over- or under-funding is impossible. Because Social Security has been operating as a defined benefit plan for nearly 70 years, it would be impractical to convert it immediately into a pure individual account plan, and no proposal has been made to do so.

Some proposals made during the 1990s would have left the current system essentially intact and supplemented it with individual "add-on" accounts derived from additional contributions. In some proposals the additional contributions are voluntary on the part of the worker, in others mandatory. Some proposals provide matching contributions from general revenues. These matching contributions are generally either targeted explicitly to the low-paid, or capped at such a low amount that they provide, only for the low-paid, a significant incentive to contribute. An add-on plan would give participating workers greater benefits, but by itself would not help finance Social Security.

More recently, most individual account proposals offer to follow a "carve-out" approach: A portion of the payroll taxes, typically 2 percent of earnings each from the employer and employee, is diverted from the defined benefit trust funds to individual accounts. An offset, or carve-out, representing the hypothetical benefits available from the individual account reduces a worker's benefit under the current Social Security program. This offset is computed by assuming that the worker's individual account earns a specified target investment return every year — for example, 3 percent more than the rate of inflation — and converting the resulting hypothetical account balance to a retirement annuity based on that same rate of return. A worker whose account actually earns a higher average rate than the target rate would get higher benefits, because the real account would be larger than the hypothetical account. Conversely, someone who earns a lower rate would get lower benefits, although some proposals include a guarantee to protect workers against any reduction in total benefits.

Like add-on accounts, the carve-out approach does nothing by itself to ameliorate Social Security's

financial problems. However, most carve-out plans reduce trust fund expenses through a decrease in the current program benefit using one of the mechanisms described earlier in this report. The goal is for workers to make up some or all of their losses resulting from the decrease in the current program benefit through individual account investment earnings higher than the target rate. If workers can make up the entire loss, the effect would be that benefits comparable to those under the current program are financed without raising the payroll tax.

An important design issue for any carve-out proposal is whether the intent is for the current program formula to continue indefinitely for some or all participants, or whether the intent is that ultimately, after a lengthy transition, the carve-out will fully offset the current program benefit for all or most participants. The key design features here are the size of the carve-out and the rate of decrease in the current program benefits – the greater the contributions diverted to individual accounts, and the more rapid the decrease in current program benefits, the more likely the hypothetical benefit attributable to these accounts will fully offset the current formula benefit. As described earlier in this monograph, some mechanisms for decreasing benefits affect the higher paid more severely than the lower paid. If such a mechanism is employed in conjunction with an individual account carve-out, the result might be that the current program benefit would provide a minimum for lower-paid workers indefinitely but be phased out eventually for higher-paid workers. This could be expected to reduce support for the residual defined benefit component among higher paid workers.

A great number of carve-out proposals have been made, including three by the 2001 President's Commission on Social Security, and many by members of Congress. These proposals include a variety of combinations of provisions, and more creative ideas are being introduced frequently. The above description gives only a broad outline of how these proposals might work.

Earned Right

By making workers the owners of their accounts, individual account plans would likely strengthen workers' perception that they have an earned right to their Social Security benefits.

Individual Equity and Social Adequacy

Proposals to replace the current system, at least partly, with a system of individual investment accounts raise anew the question of social adequacy and individual equity. Individual investment accounts, by their nature, stress individual equity. Provisions that preserve social adequacy must be explicitly designed into such a system.

All individual account proposals most recently considered include provisions that mitigate the swing away from social adequacy toward individual equity inherent in moving to an individual account design. An example of such a provision has already been described — namely, retaining the current program benefit as a minimum for the lower-paid. Most proposals also retain current program auxiliary benefits, sometimes with changes such as those described earlier in this report, as a minimum at all earnings levels. Other mechanisms for preserving a greater degree of social adequacy under an individual account plan include: minimum guaranteed benefits; providing above-market interest rates and/or more favorable annuity purchase rates to accounts of lower-paid workers; and diverting a greater share of payroll taxes to individual accounts for the lower-paid while calculating their carve-out on the same basis as the higher-paid.

As described earlier in this paper, the current Social Security program provides social adequacy through a complex web of subsidies — from the high-paid to the low-paid, from single to married workers, from dual-earner to single-earner married couples, from the short-lived to the long-lived, from the healthy to the disabled, and so forth. Many participants are in both subsidizing and subsidized groups. This complexity hides, to some extent, the subsidies built into the system. The difficulty of preserving social ade-

quacy under an individual account system is that the various subsidies become more explicit, making it more likely that subsidizers will lose confidence.

Financing

An individual account is fully funded at all times, because a participant's benefit is based on his or her account balance, and the account always contains a share of the assets of the trust fund whose value equals the account balance. However, individual accounts exacerbate the problem of funding current program benefits. This is because they divert payroll tax income away from the trust funds immediately, while resulting decreases in current program benefits occur much later. Most proposals preserve the current program benefits for workers at least age 55 when individual accounts are first funded. Therefore, for seven years after the initiation of individual accounts, until the first participants with accounts reach age 62, there is no decrease in current program benefits. Even when workers with individual accounts begin retiring, their account balances and the resulting carve-outs will be small at first. Many decades will pass before decreased benefit payments from the current program are commensurate with decreased funding for that program.

There is another way to explain this transition. Under the system as now constituted, each generation largely pays for the benefits of the preceding generation. Under an individual account system, each generation pays for its own benefits. During the transition from defined benefit to individual account, there will inevitably be a transition generation that must pay for both the preceding generation's benefits and its own.

This additional burden is called the "transition cost." While the amount varies among proposals, liabilities in the range of \$10 trillion are not atypical. Proponents of individual accounts often say this liability already exists and is not created by the transition to individual accounts. However, the issue here is not the existence of the liability, but the timing of when it comes due. The transition to individual accounts places the burden of the Social Security liabilities of two generations on one. Like many federal liabilities, this one can be passed down to future generations through borrowing, but the sheer magnitude of the additional government debt that must be issued, on top of an already rapidly growing national debt, has further complicated consideration of such proposals.

Other Individual Account Issues

Voluntary or Mandatory Accounts

A voluntary individual account program would have obvious appeal for many workers, and has been endorsed by some political leaders in Congress and the White House. Still, a voluntary program has formidable issues that do not arise under a single, mandatory plan.

For example, what benefits would participants who stay in traditional Social Security receive? Social Security is expected to be unable to pay benefits in full within a few decades, and this raises difficult questions if individual accounts are voluntary. Should workers who opt out of individual accounts get a scaled-back version of Social Security? Should workers be told that the program they choose is subject to unspecified changes?

In virtually all voluntary proposals to date, a worker's decision about whether to participate in individual accounts is one-time and irrevocable. In practice, it seems reasonable to expect that over time the public would insist on having open seasons in which to change their elections. Workers could say that they were not properly informed, that circumstances had changed, especially if either Social Security or the individual account plan has been modified in any way. This is by no means a fatal flaw of voluntary proposals, but it should be recognized and considered accordingly.

Some proposals get around this problem by guaranteeing the greater of the benefits under the old and new programs. However, this solution adds to benefit costs and complicates program administration. It also could encourage workers to invest as aggressively as possible, knowing that they can't lose if the investments turn out badly, unless investment options were severely limited.

Some proposals make individual accounts voluntary only for workers already participating in Social Security when the accounts are first offered; individual accounts would be mandatory for future workers. In such proposals, once all current participants and their beneficiaries have ceased receiving benefits, the program will have made the transition to a pure individual account design.

Making individual accounts voluntary would raise total program costs compared with a similar mandatory individual account design. Sources of additional cost include:

- Tracking workers' choices and maintaining parallel systems for workers opting in and opting out.
- Handling initial and ongoing communications with workers about their alternatives.
- Paying additional costs caused by workers who opt in or out to maximize their benefits based on their particular circumstances (called "anti-selection").
- Providing benefit settlements that meet the dual requirement of ensuring adequacy and placing workers at ease, while addressing the risk that they and their spouses will die before their entire account balances have been distributed.

Educating workers to make rational and informed decisions would be a challenge for any voluntary individual account program. Most employers could not do an adequate job of educating employees, so the government would have to create facilities to do this directly. Even so, some workers who found they had made the wrong choice would seek to undo it. Experience under other programs, such as the option for federal employees to transfer from the Civil Service Retirement System (CSRS) to the new Federal Employee Retirement System (FERS), suggests that many people who stand to benefit from electing the new plan are likely to stay in the old plan because of inertia. In that event, the new program would not fully accomplish its objective of strengthening Social Security.

Managing Individual Accounts

Designing an individual account plan for Social Security presents several administrative challenges. Such a plan should help workers choose from among attractive investment options, with an administrative structure that handles their accounts efficiently and economically. Moreover, politicians seem to agree in principle that such a plan should operate solely in the interests of participants, not allowing elected officials to help choose the appropriate stocks to buy or sell. A basic question is whether an individual account plan for Social Security could better satisfy these objectives by decentralization, as in the Individual Retirement Account (IRA) model, or by centralization along the lines of the TSP model.

Investors sometimes want to make a statement that transcends financial considerations, for example, choosing to invest in Company A whose products and practices embody values they want to support, and not Company B whose values they dislike. Accordingly, many socially responsible mutual funds will not invest in certain kinds of companies (e.g., those whose products include alcohol, tobacco, or firearms, or who are considered to have poor records on safety, the environment, or employee relations). Some elected officials may likewise be strongly tempted to inject their own values into an investment process managed by the government. But opinions differ widely about what companies are good or bad, and focusing on ethical values instead of profits may detract from investment performance. In creating and enacting the TSP, Congress overwhelmingly supported the principle of keeping politics out of governmental investing. Would the same "hands-off" attitude prevail in adopting Social Security individual accounts? Resolving this issue effectively would be a critical step in designing a viable program.

Compared to the IRA model, a centralized investment structure for the individual accounts has both advantages and disadvantages:

- A centralized plan would limit workers' freedom of choice. Such a plan could start out offering only a few investment choices and later offer more if desired. Opinions differ on whether offering more choices would represent an advantage or a disadvantage. Offering a smaller number of funds may give workers meaningful choices while limiting the number of funds to be explained and administered and allowing a wide range of private-sector investments to be represented in index funds.
- Simplicity and low costs are major advantages of centralization. Private-sector specialty firms might have a smaller role than in a decentralized system, acting as outsourcing providers rather than full-service investment brokers or money managers.
- Keeping politics out of investments would be an ongoing problem for a centralized plan. Investment authority could reside in an independent board with broad power to set investment policy and choose investments, although such a board might be difficult to insulate from politics. Alternatively, the TSP has addressed this issue by using index funds to make such decisions more or less automatically under the direction of an independent board with little investment authority.
- Communications and employee education would be extremely important. Centralizing the management of these functions and offering only a limited number of choices may be more cost-effective and reduce problems with independent vendors who over-sell investment products.
- Even if workers adopt optimal investment strategies, there could be a disparity of benefits among workers at different economic levels. Wealthier workers, with alternative financial resources, would be in a position to take more investment risk than their less wealthy counterparts. The reward for this additional risk could be disproportionately greater benefits.

The TSP experience to date shows that an independent board can be difficult to manage. Soon after creating the TSP, Congress had to amend the law several times to keep the Thrift Board members from resigning because of concerns about fiduciary liability. Other startup problems involved the Thrift Board's (1) insisting that Treasury issue debt securities with interest yields of long-term bonds but with durations of only one day, (2) submitting its annual budget to Congress without White House review, and (3) deciding how to handle proxy voting for its individual stock holdings. The Thrift Board's independence is an ongoing policy experiment that can always be changed by lawmakers wishing to impose their own values. In view of Social Security's much greater political prominence, it would seem that Congress should give careful thought to any statutory rules about independent government administration of individual accounts, recognizing that a future Congress could always rewrite such rules.

Payout of Funds

During the accumulation phase, many workers would want loans or withdrawals from their individual accounts. Some of these individuals or their families may have suffered great personal and financial misfortune. Policy-makers need to decide at the outset whether to offer access to funds, or to rely on other programs and resources instead. Making exceptions in hardship cases is likely to open the door to other cases, weakening the ability of the plan to fulfill its objectives.

In the event a worker dies during the accumulation phase, it makes sense that the account balance be preserved for the benefit of survivors. In such cases, a surviving spouse and children should be given priority over other beneficiaries.

However, once the accumulation phase has ended and a worker retires, should lump-sum payments be made available, or should all workers instead be required to convert their account balances to annuities?

- *Mandatory annuities limit freedom of choice.* Such a restriction on the use of their funds could be unpopular among workers with large account balances, other sources of retirement income, great confidence in their own ability to invest profitably, or poor health that limits their life expectancy.
- *Mandatory annuities favor people with a longer life expectancy,* generally including people in good health, women, high earners, and members of long-lived racial or ethnic groups. People with the opposite characteristics would tend to have shorter lives and collect less from annuities.
- *Mandatory annuities ensure that retirees do not outlive their resources.* Nobody knows how long his or her retirement savings must last, and an annuity removes the guesswork. An annuity also avoids the problem of people spending their money too rapidly, and then living many years in poverty.
- *Mandatory annuities address the widespread lack of investment skills* needed to manage a large sum of money and produce a steady rate of income, especially at an advanced age.
- *Mandatory annuities reduce the cost of annuities.* Under the voluntary system that now exists in the individual annuity market, only people in excellent health are willing to buy an annuity. This above-average life expectancy drives up the cost of annuities and makes them impractical for someone whose health is impaired. In contrast, mandatory annuities would cover a cross-section of workers with average longevity, making annuities less costly. Mandatory annuities with standard features also reduce administrative costs, which would be reflected in annuity pricing.
- *Mandatory annuities make unisex pricing feasible.* If annuities were voluntary, as they are now, a free and competitive annuity market would give women less attractive rates than men. That is, when insurance companies can charge whatever rates they want, women always pay more for an annuity because they tend to live longer. Unfavorable treatment of women could be a major barrier to public acceptance of individual accounts, replacing Social Security benefits that treat both genders alike.

The preceding points demonstrate that mandatory annuities have both advantages and disadvantages. Some proposals require annuitization only in certain circumstances, for example, if the income from an annuity is necessary to keep the worker's income above the poverty level. This could result in Social Security splitting into two separate programs — an anti-poverty program for the poor and a capital accumulation program for the rich. Such a result could erode public support for the program over the long run.

An annuity could have a great many forms, including payments for a specified number of years, or payments over the life of one or more persons. Variable annuities are a possibility, with the amount of income varying with the performance of an underlying investment portfolio, although the accompanying risks seem inappropriate for a program intended to provide a basic level of support in retirement. Policy-makers may want to consider a standard form of annuity, which may include the following:

- Payments are made for a worker's life in a fixed amount, not varying with the stock market, but are adjusted annually to keep pace with the cost of living.
- After the death of a married worker, payments to a surviving spouse continue at a two-thirds rate for life.
- After the death of a worker and any surviving spouse, a cash refund is paid that is equal to the account balance at retirement, less annuity payments already made. This of course, has a cost. It reduces the monthly income while the workers and spouse are alive.

This annuity form is consistent with the current Social Security program, paying benefits for life to the worker, with two-thirds of the couple's benefit paid to a surviving spouse and with annual COLAs. The cash refund death benefit is consistent with preservation of the account balance in the event of death before retirement, providing similar death benefits if an unmarried worker dies shortly before retirement or shortly after. Also, the cash refund feature may be necessary to obtain broad popular support for annuitization. Low-income individuals make up a disproportionate share of those with shorter life expectancies; the cash refund would ensure that each worker's family would get back at least the amount the worker paid in.

There are three possible sources for annuities purchased by individual accounts: (1) the private annuity market; (2) the federal government working through an agency, such as the Social Security Administration; (3) the federal government working through private firms. The TSP now contracts with one insurer to issue annuities to the few retirees who want them, using rates that are the same for men and women. For Social Security individual accounts, some kind of centralized annuity program, operated or sponsored by the federal government, could have major advantages over the traditional private annuity market, as follows:

- Compared to the existing “retail” annuity market, a centralized “wholesale” system would have substantial expense savings and could cover a cross-section of the population instead of just the healthiest people, permitting more attractive annuity rates. Some administrative and financial tasks could be contracted out to private firms or consortia.
- The existing annuity market entails some risk of insurer insolvency that could reduce or stop payment of annuities, though each state sponsors guaranty funds that provide substantial backup. For annuities derived from a Social Security individual account program, any such risk would seem unacceptable. A federal guarantee of private annuities would require a new framework of federal regulation, controls, and occasional bailouts. A simpler and more direct approach is for the federal government to take full responsibility for paying the annuity benefits, similar to the government's role in the current Medicare program, which uses private insurers to pay claims using government funds.
- Few if any annuity providers in the private sector now issue annuities with full protection against inflation. Meanwhile, the federal government provides annuities fully indexed to the CPI under Social Security, the Civil Service Retirement System, and the Military Retirement System. This experience strongly suggests that the government can readily extend such inflation protection to annuities paid from an individual account program.
- As noted above, unisex rates and options are politically desirable, but are not consistent with a free and competitive private market for individual annuities. The TSP experience shows that the government can contract with private firms for annuities at unisex rates, and perhaps could do so under a much larger program involving Social Security.

Annuities would be more economical to administer if their payments were combined with payments of other Social Security benefits. Combining the payments would make it feasible to administer annuities derived from small account balances.

A separate issue is the timing of annuity purchases, such as by spreading the conversion of the account balance to an annuity over several years to smooth out fluctuations in investment performance and interest rates. This would protect a worker who is preparing to retire from sudden changes in investment markets that could sharply reduce the annuity income. An alternative would be to convert any stocks to long-term, fixed-income securities over several years before retirement.

Conclusion

The problems facing Social Security, when placed in the context of the enormous US economy, are not nearly as daunting as they might seem when presented in stark dollar terms. In the 70-year history of Social Security, the tax rate has increased from 2 to 12.4 percent of taxable payroll; the estimated increase required to fund the current system over the next 75 years is far less. Further, the need for such tax increases can be reduced, or even eliminated, by changes in benefits and other features; and any required changes can be phased in gradually. Does this mean we can do nothing and just wait to see what develops? While waiting will not destroy the system, there are advantages to acting now.

Waiting until the last minute to make changes is not a good idea. Enacting changes under pressure can lead to inequities, intended or not, in the distribution of benefit reductions. It does not give current beneficiaries or workers near retirement whose benefits will be reduced ample time to change their retirement plans. This, in turn, can lead to needless dissatisfaction with and loss of confidence in the system. With a longer lead-time, changes can be designed with greater care and introduced more gradually. Although a longer lead-time may not change the ultimate level of benefit cuts or tax increases required to eliminate the deficit, reductions introduced over time can be less abrupt and therefore less onerous to those who have planned accordingly.

For these reasons, the American Academy of Actuaries' Social Insurance Committee believes that preventive maintenance of the program by changing it now is preferable to waiting until changes are forced by circumstances. For example, consider a worker who is age 45 when the program is changed. When this worker reaches the Social Security retirement age of 67, he or she will have been paying increased taxes, or saving more to compensate for lower expected benefits, for 22 years. Each year reform is delayed means this worker will have fewer years to be part of the solution, and fewer years to prepare for the changes that reform will inevitably bring.

There are numerous potential reforms that could address Social Security's financial problems. Options within the current defined benefit structure include increasing the tax rate, reducing benefits by changing the benefit formula, reducing benefits by changing the way they are automatically adjusted for inflation, reducing benefits to dependents, changing the way trust fund assets are invested, and raising the age at which unreduced benefits are paid. Alternatively, the system could be fundamentally changed so that all or some of the benefits are paid from individual accounts. This report presents the committee's analysis of these and other options, without the endorsement of any particular change.

Further Reading

2006 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds, May 2006.

Advisory Commission to Study the Consumer Price Index. *Toward a More Accurate Measure of the Cost of Living*, Report to Senate Finance Committee, December 1996.

An Actuarial Perspective on the Social Security Trustees Report, American Academy of Actuaries, May 2006.

Means Testing for Social Security, American Academy of Actuaries, January 2004.

President's Commission to Strengthen Social Security. *Strengthening Social Security and Creating Personal Wealth for All Americans*, December 2001.

Raising the Retirement Age for Social Security, American Academy of Actuaries, October 2002.

Report of the 1994-1996 Advisory Council on Social Security, January 1997.

Social Adequacy and Individual Equity in Social Security, American Academy of Actuaries, January 2004.

Social Security Benefits: Changes to the Benefit Formula and Taxation, American Academy of Actuaries, October 2006.

Social Security Individual Accounts: Design Questions, American Academy of Actuaries, October 2003.