



**UNDERSTANDING
SOCIAL SECURITY
REFORM:
THE ISSUES
AND ALTERNATIVES**



MARCH 2005

2ND EDITION



**Understanding
Social Security Reform:
The Issues and Alternatives**

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Preface

The American Institute of Certified Public Accountants (www.aicpa.org) is the national professional association of CPAs with approximately 340,000 members, including CPAs in business and industry, public practice, government, and education; student affiliates; and international associations. The AICPA sets ethical standards for the profession and U.S. private auditing standards. It also develops and grades the Uniform CPA Examination.

This report was first issued in 1998. In 2005, President George W. Bush made Social Security reform a priority for his second term. This revised second edition has been issued to facilitate discussions on reform.

The AICPA believes the long-term viability of the Social Security system must be addressed soon. Societal, economic, and workforce changes have called into question the role, design, and objectives of the program for the future. Unfortunately, it is often difficult to understand the degree of Social Security's financial problem and its many features and impacts on the economy and society. The goal of this report is to foster informed discussion by providing unbiased facts and analysis. Through such discussion, creative and fair solutions will be found.

Much has changed since the Social Security system was created. The demographics of the individuals contributing to and receiving benefits from the system have altered considerably. The social structure and wage-earner roles of the American family are very different. The system is older and faces the issues inherent in a mature pay-as-you-go system.

Other factors have not changed. Social Security continues to keep many elderly Americans out of poverty. All Americans continue to expect, and many rely upon, the promised benefits for their contributions into the system. Hence, the reform debate must consider all these issues as it reexamines the role of Social Security in the American tax and social support system.

The debate surrounding Social Security reform brings to the forefront philosophical differences, varying opinions about impact, and the age-old trade-offs between fairness, simplicity, economic growth, and social policy. Options for reform have a far-reaching effect on all Americans. Current and future beneficiaries must understand the implications of reform in order to reach a consensus and to gain broad acceptance of a new system.

The American Institute of Certified Public Accountants strongly urges that, before taking a position on a possible solution to the funding shortfall, policymakers and the public need to gain a clear understanding of the issues involved in reforming Social Security. Although care and deliberation are called for in reforming a system as important as Social Security, we must move toward a solution in the near future. The longer we delay, the more difficult and painful reaching a solution will become.

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Executive Summary

Social Security is often described as the most popular government program, and Americans collectively have come to rely on it for their retirement years. But the long-term viability of Social Security must be addressed in the very near future.

The American Institute of Certified Public Accountants strongly urges that, before taking a position on a possible solution to the funding shortfall, policymakers and the public need to gain a clear understanding of the issues involved in reforming Social Security. The goal of this report is to foster informed discussion by providing unbiased facts and analysis.

The Situation

According to the Social Security Administration’s “best guess” (intermediate) assumptions, the Social Security Trust Fund surplus will peak in 2028. Then it will decline steadily until 2042, at which time the Trust Fund will be exhausted. However, inadequate funds do not mean zero benefits. If no changes are made to Social Security, beneficiaries could receive full scheduled benefits through 2042. Thereafter, scheduled benefits would have to be reduced by 27 percent. In 2078, benefits would have to be reduced by 32 percent. This Social Security “deficit” could be funded by an immediate infusion of \$3.54 trillion; by increasing the payroll tax rate from its current level of 12.4 percent to 14.3 percent; or by reducing current scheduled benefits 12.6 percent.

Although the intermediate assumptions are reasonable there is still considerable uncertainty about actual results. Under Social Security’s high-cost projections, the Trust Fund peaks in 2021 and is entirely depleted by 2031. Under low-cost projections, the Trust Fund would not be depleted and there is no long-term financing problem.

Poverty and Elderly

Social Security is a critical component of the financial security of millions of retirees – especially for future generations of the nation’s elderly poor. Social Security provides more than half of the total income for almost 60 percent of beneficiaries. For almost 30 percent, it provides more than 90 percent of income.

Reducing poverty among the elderly is Social Security’s major accomplishment to date. The poverty rate among the elderly in 2000 was approximately 10 percent, down from a rate of 35.2 percent in 1959. Without Social Security, the poverty rate among the elderly would be 48 percent.

Fairness – Economic and Otherwise

Social Security was created as a pay-as-you-go system. Most of today’s Social Security recipients are receiving – and will continue to receive – more in benefits than their actuarial “fair share” based on their contributions. Even if all promised benefits were paid, future retirees,

particularly singles, two-earner couples and those with high incomes, will earn below-market rate returns on their contributions.

The rate of return earned on an individual's Social Security contributions is affected by gender, marital status, and income level. Social policy considerations weaken the direct link between contributions made and benefits received. The Social Security benefit formula includes a declining fraction of income in the calculation. As a result, low income beneficiaries benefit from the formula, high income beneficiaries do not. Married couples benefit from spousal and survivor benefits.

Reform plans to create personal savings accounts within the Social Security system would move the program away from a pay-as-you-go social insurance program and make it more like a defined-contribution pension plan. This will result in less redistribution of income (1) from high- to low-income earners; (2) from single individuals to married couples; and (3) from two-earner couples to one-earner couples.

Impact on Labor and Savings

Although analysts do not believe that Social Security taxes have much impact on the overall labor supply, payroll taxes may affect labor supplied by individuals for whom working is not a necessity. The Social Security benefit rules also appear to affect decisions about early retirement and the amount of work retirees plan to perform during retirement.

Increased national saving is a key to increased capital formation, productivity, and long-term economic growth. The current pay-as-you-go Social Security system may have decreased workers' overall saving rates. The anticipated shortfall in future benefits may encourage workers to save more, but the magnitude of these effects is subject to debate.

Restoring Fiscal Balance

There are four general methods of improving the financial condition of the Social Security Trust Fund: (1) reducing benefits; (2) increasing revenues; (3) improving the rate of return on Trust Fund assets; and (4) other revenue sources, such as appropriating Treasury general funds.

Benefit reductions can be accomplished through across-the-board cuts, means-testing, raising the retirement age, or changing the inflation-adjustments used to determine benefits. Revenues can be increased by raising the payroll tax rate, raising the cap on taxable income, extending the payroll tax to all government workers, raising income taxes on Social Security benefits, and diverting general tax revenues to the Trust Fund.

Investing in Private Securities

If Social Security remains a pay-as-you-go system, the average rates of return on Social Security contributions will eventually decline below rates of return historically available in financial markets. Even if Social Security became a fully funded system, its rate of return could not

significantly improve unless the restriction to invest solely in U.S. government securities was lifted.

Investing Trust Fund assets, as a whole, in the stock market could improve Social Security's financial condition, because – over long periods of time – the stock market generally outperforms the return on U.S. government securities. However, investing in private securities adds risk and increased administrative costs to the financing equation. Further, the potential for large-scale government investment in private equities could result in undue political influence on markets.

Personal Accounts

Under a system of personal accounts, a portion of payroll taxes paid by each worker under age 55 would be redirected from the Trust Fund to that worker's own personal account. Some restrictions would be imposed on investment and payout options, but the personal account holder could generally expect to earn a higher return on their contributions.

Personal accounts would not entirely eliminate traditional Social Security retirement benefits. However, under most proposals reviewed in this report, traditional benefits would be reduced *regardless* of whether an individual chose to participate in the voluntary account program.

Benefit Offsets: Workers choosing to contribute to personal accounts would receive benefits from their personal account along with traditional benefits that have been reduced according to the amount redirected to an investment in a personal account. The greater this “benefit offset,” the less attractive the personal account option will be, but large benefit offsets make personal account proposals less costly for the Trust Fund.

Risk Shifting: Personal accounts expose account holders to uncertainty about their future benefit levels because of market performance risks. Although some of this risk can be eliminated through diversification; the rest may be transferred to the federal government in the form of minimum benefit guarantees.

Administrative Costs: The costs to administer private accounts have a large impact on the benefits ultimately available to retirees. For an individual with average earnings of \$30,000, contributing 2 percent of earnings to an individual account, administrative costs of 0.1 percent of assets could allow an accumulated balance of \$125,430 by retirement. However, if administrative costs were 1.0 percent, the accumulated balance would be approximately \$98,000 – a 22 percent reduction.

Funding Transition Costs

Over the 75-year horizon used to score Social Security reforms, the creation of personal accounts by themselves worsen the financial condition of the Social Security Trust Funds. During the long transition to a personal account system, fewer funds would be available to pay traditional benefits to current retirees and near-retirees, because contributions diverted to the personal accounts of younger workers would result in lower contribution levels into the Trust Fund.

Therefore, extra funds from outside the program or cost savings from inside the program would be needed to fund the transition. All personal account proposals considered in this report include transfers from the Treasury general fund to the Social Security Trust Fund.

QUESTIONS FOR EVALUATING PERSONAL ACCOUNT PROPOSALS

Among the most important issues to consider under any personal account proposal are the following:

- To what degree, and over what period, would benefits under the existing system remain in place?
- Will there be a safety net for low-income beneficiaries?
- How much choice will individuals have about:
 - Participating?
 - Investments?
 - Distributions?
- Will benefit payments be subject to tax? If so, at what rate?
- What will the plan “cost” beneficiaries in lost traditional benefits as a trade-off for a personal account?

Exhibit A
Outline of Selected Social Security Reform Proposals

	Current Law (2003 Assumptions)	Ferrara- Ryan (w/o Payroll Tax Cut)	Reform Commission Plan 2	Diamond- Orszag	DeMint	Graham	Kolbe-Boyd	Smith
General Features:								
Change in Structure of Traditional Benefits	-	No	Yes	Yes	No	Yes	Yes	Yes
Payroll Tax Increase	-	No	No	Yes	No	No	Yes	No
Personal Accounts	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Features of Personal Accounts:								
Annual Contributions (% of payroll)	-	10% of 1st \$10,000; 5% of other (6.4% avg)	4%, up to \$1,000	-	Sliding scale from 8% to 3% (5.1% avg.)	4%, up to \$1,300	3% of 1st \$10,000; 2% of other	2.5% through 2025; 2.75% for 2025-2038
Investment – Individual accounts, centrally administered?	-	Yes		-	Yes	Yes	Yes	Yes
Minimum Distribution	-	Current law benefits		None specified	Poverty level	120% of the poverty level	None specified	Poverty level
Cost:								
Funds Required from Outside Social Security (in present value, billions of dollars)	\$3,544	\$5,557	\$2,267	-\$449	\$4,627	\$1,708	\$1,029	\$596
Sources: Social Security Administration memoranda evaluating these proposals can be found at www.ssa.gov/OACT/solvency .								
Notes: See Exhibits 7.10 and 7.11 for more details.								

Chapter 1

The Financial Condition of Social Security

SUMMARY

- According to Social Security Administration estimates using intermediate assumptions, the Social Security Trust Fund balance will peak in 2028. Thereafter, it will steadily decline as yearly benefit payments exceed yearly collections. By 2042 the Trust Fund will be exhausted.
- If these estimates stand and no changes are made in the Social Security system, beneficiaries can receive full scheduled benefits through 2042. At that point, scheduled benefits would have to be reduced by 27 percent, with reductions reaching 32 percent by 2078.
- An immediate and permanent increase in the Social Security tax rate from its current level of 12.4 percent of payroll to 14.3 percent would eliminate this estimated shortfall. Alternatively, an immediate and permanent 12.6 percent reduction in all benefits would eliminate the estimated shortfall.
- Increased longevity and a reduced birth rate are at the heart of Social Security's long-term financing problems. In 1960, the worker-to-beneficiary ratio was 8.6. Currently, it is 3.3. It is projected to drop to 2.2 by 2028, and to 1.9 by 2062.
- Although the Social Security Administration's best-guess (intermediate) assumptions are reasonable, considerable uncertainty surrounds these estimates. Possible outcomes range from the high-cost projection – under which the Trust Fund peaks in 2021 and is entirely depleted by 2031 – to the low-cost projection – under which there is no long-term financing problem and Trust Fund is never depleted.

A. INTRODUCTION

During its first fifty years, the Social Security system was all things to all people. To the American public generally, it looked like a pension plan that yielded an excellent return on contributions. To advocates of income redistribution, the Social Security system provided a vehicle for substantially reducing poverty among the elderly without the stigma of “welfare.” However, as first recognized by the Social Security reforms of 1983, it is clear that, as presently implemented, the Social Security system cannot meet all its future obligations. Even if it does, future Social Security beneficiaries will not receive return as favorable as their parents received.

The most salient financial characteristic of the Social Security system has been its “pay-as-you-go” structure. Throughout most of its history, the Social Security system has not pre-funded

benefits and has used “excess” receipts to finance other government expenditures. Even now, with a significant buildup in Trust Fund assets, benefits are only partially funded. The result is a massive intergenerational redistribution of wealth from the young to the elderly. Through Social Security, today’s workers are funding a large part of their parents’ retirement, but their children will not be able to do the same for them. Most projections indicate that not all promised retirement benefits can be paid to today’s workers under the current financing arrangements. All projections indicate that current workers will get a much lower rate of return from the Social Security system than current retirees.¹

Legally, what is commonly referred to as Social Security contains two separate programs: Old-Age and Survivors Insurance (OASI) and Disability Insurance (DI). The two funds are inextricably linked, both from a political and financial perspective, and common practice is to present data for these two funds jointly. The data presented in this report follows this practice, but as does the current policy debate, this report focuses on issues relating to OASI – the retirement portion of the Social Security Trust Fund.²

Note to Readers: For the sake of simplicity, this report does not consider the important issue of Medicare funding, even though the financial status of the Medicare Trust Fund is even more precarious.³ Politicians – and current and future retirees – must also consider the need to address the problems of healthcare benefits provided through the Medicare system.⁴

B. STATISTICAL OVERVIEW

Most public pronouncements about the financial condition of Social Security are based on projections by the Social Security Administration’s Office of the Actuary (SSA) using its “intermediate” assumptions about population changes and economic growth. Although these projections have limitations, they are a logical starting point for comparative analysis. Each

¹ In December 2004, 47.7 million persons received Social Security benefits. 75 percent (35.7 million) were age 65 or older. Another 8.4 percent (4.0 million) were children under age 18. Benefit payments from Social Security trust funds for the month of December 2004 were \$41.6 billion. Average monthly benefits were \$955 for retired workers and \$905 for non-disabled widows and widowers. These data are updated monthly and are available online at http://www.ssa.gov/policy/docs/quickfacts/stat_snapshot/.

² In December 2004, 7.0 million beneficiaries were receiving payments on the basis of disability. Of the \$47.7 billion of total Social Security benefits paid in December 2004, \$5.5 billion were payment of disability benefits. For disabled workers, average monthly benefits in December 2004 were \$894.

³ According to the 2004 Annual Report to Medicare’s Board of Trustees (available online at <http://www.cms.hhs.gov/publications/trusteesreport/2004/>), total Medicare expenditures were 2.6 percent of GDP in 2003. In 2006, with the implementation of the new prescription drug benefit, total expenditures are estimated to be 3.4 percent of GDP and to increase rapidly to 7.7 percent by 2035 and to 13.8 percent by 2078. Projected Medicare costs would exceed those for Social Security in 2024; by 2078, the level of Medicare expenditures would represent nearly twice the cost of Social Security. The difference between program outlays and dedicated financing sources, which was 33 percent in 2003, is estimated to reach 45 percent of outlays in 2012. The Hospital Insurance Trust Fund is projected to be exhausted in 2019.

⁴ Medicare tax rate is 2.9 percent and is not reflected in the combined Social Security payroll tax rate of 12.4 percent quoted throughout this report.

year, as part of their annual report to the Social Security Fund Trustees, the SSA makes projections about the financial status of the Social Security system during the following 75 years.⁵ Because projections over a 75-year horizon are inherently uncertain, the actuaries present three sets of estimates. The intermediate-cost estimate is based on economic and demographic assumptions that are the SSA’s “best guess” about what the future holds. The high-cost estimate sets all the variables at the most pessimistic levels within a reasonable range. The low-cost estimate sets all the variables at their most optimistic levels. The results of these three sets of estimates are summarized in **Exhibit 1.1**.

Exhibit 1.1
Summary of the Social Security Administration’s Low-, Intermediate-, and High-Cost Projections of Trust Fund Finances

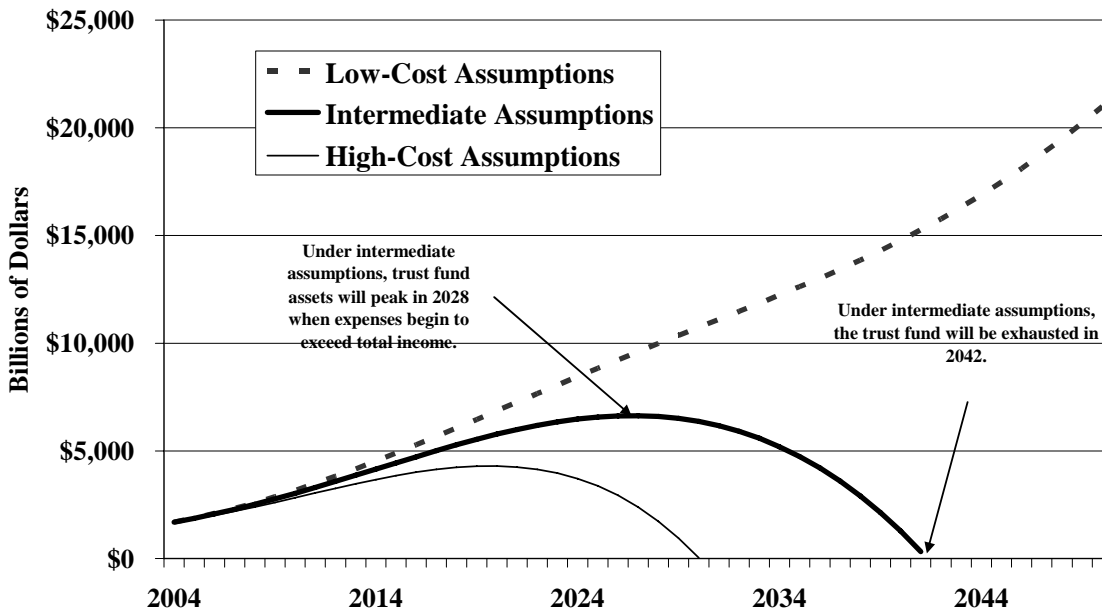
	Maximum Ratio of Trust Fund Assets to Current Benefits	Year Maximum Fund Ratio Attained	First Year <u>Current</u> Benefits Exceed <u>Current</u> Income	First Year <u>Total</u> Trust Fund Peaks	Year Trust Fund Is Exhausted	Tax Rate Change Needed to Restore Balance
Low cost	572%	2021	2022	Never	Never	-0.41%
Intermediate	448%	2015	2018	2028	2042	1.89%
High cost	349%	2012	2013	2021	2031	4.96%
Source: 2004 Social Security Trustees’ Report, Tables IV.B3, IV.B5, and IV.B9. “Current income” refers tax revenue. “Total income” refers to tax revenue plus interest earned on existing balances.						

Under intermediate assumptions, the Social Security Trust Fund will continue to grow until 2028. At that time benefits paid will exceed interest earned and payroll taxes paid into the fund. Deficit spending will then exhaust the Trust Fund by 2042. After that, the Social Security system will receive revenues sufficient to cover less than three-quarters of its scheduled benefit payments. Under high-cost projections, the Social Security Trust Fund balance reaches its peak in 2021 and entirely depletes its fund balances by 2031. Under low-cost projections, however, the Social Security Trust Fund is never depleted, and there is no long-term financing problem. These projections are illustrated in **Exhibit 1.2**.⁶

⁵ Social Security Administration, *The 2004 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds* (March 23, 2004) (hereinafter 2004 Social Security Trustee’s Report or 2004 Trustee’s Report).

⁶ An Excel spreadsheet giving more detail on [Exhibit 1.2](#) is available online.

Exhibit 1.2
Projected Assets of the Social Security Trust Fund



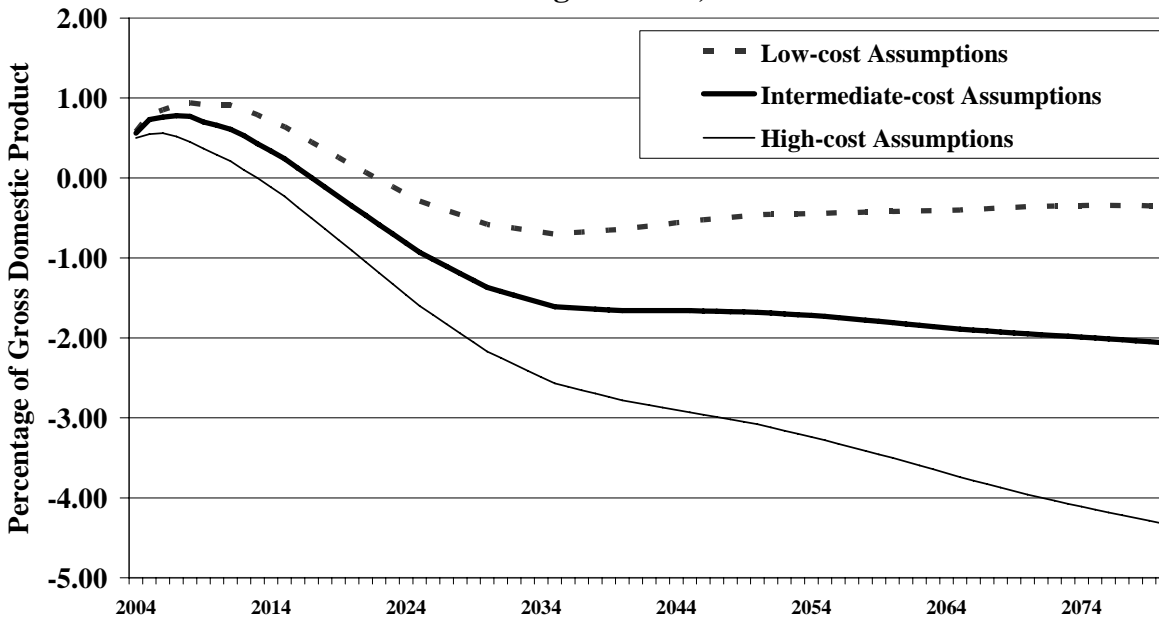
Source: 2004 Social Security Trustees' Report, Table VLF9.

One common measure of Social Security’s financial condition is called the “*actuarial balance*” of the fund. The actuarial balance is the percentage-point change in the Social Security tax rate for the current working population (now 12.4 percent) necessary to avoid any shortfalls in benefit payments, assuming (1) an immediate rate change that (2) remains in place throughout the 75-year projection period. The actuarial balance ranges from a small surplus of 0.41 percent of taxable payroll under low-cost assumptions to a deficit of 4.96 percent of payroll under high-cost assumptions. Under intermediate-cost assumptions, financial soundness could be restored to the system with an immediate and permanent increase in the tax rate of 1.89 percent. *Taxable payroll* is the wages and salaries paid during employment that is covered under the Social Security program and is subject to Social Security tax (that is, up to the maximum amount, \$90,000 for 2005).

Under intermediate assumptions, the Social Security deficit is approximately 1.5 percent of gross domestic product (GDP) beginning in 2030. Under high-cost projections, the Social Security deficit is approximately 2 percent of GDP in 2030 and grows steadily to almost 4 percent of GDP by end of the 75-year estimation period. Under low-cost assumptions, the Social Security deficit reaches about 0.5 percent of GDP by 2030 and thereafter gets smaller. Under the low-cost scenario, although benefits paid by the Trust Fund exceed the tax revenue received, Trust Fund does not fall into deficit because interest earned on Trust Fund assets is sufficient to cover the difference. **Exhibit 1.3** illustrates Social Security deficits as a percentage of GDP.⁷

⁷ An Excel spreadsheet giving more detail on [Exhibit 1.3](#) is available online.

Exhibit 1.3
Projected Social Security Surplus and Deficit,
as a Percentage of GDP, 2004-2080



Source: 2004 Social Security Trustees' Report, Table VI.F5.

C. REASONS FOR MAJOR REVISIONS IN PROJECTIONS SINCE 1983

In 1983, when Congress reduced benefits and earmarked income-tax receipts on Social Security benefits for the Trust Fund, the Trust Fund was projected to increase to \$20 trillion and be in surplus through 2065. Currently, the Trust Fund is projected to peak at \$6.6 trillion in 2028 and last until 2042.

A variety of factors account for most of the projected increase in long-range costs. One factor – which is not accuracy related – is that the 75-year period being measured keeps shifting. Each new 75-year forecast includes fewer surplus years at the beginning and more deficit years at the end; hence, the progressively gloomy forecast for Social Security.

A second factor contributing to larger projected deficits is higher-than-anticipated growth in the disability caseload. A combination of legislative, regulatory, and judicial actions make it easier for individuals to qualify for disability benefits. The 1997 removal of drug and alcohol addiction as qualifying disabilities may reduce the disability caseload in the future.

A third element resulting in a higher post-1983 projected deficit is the net impact of changes in the forecasting methodology.

Changes in economic and demographic assumptions, however, are not primarily responsible for these increasing deficit projections. Although the birth rate has been declining and longevity

increasing – both of which are detrimental to Trust Fund soundness – these trends were anticipated in 1983. In fact, projections of these variables were slightly pessimistic. The assumed real rate of wage growth has been reduced, but the reductions were not large enough to offset the favorable changes in demographic assumptions.

The birth rate and longevity estimates are, however, indirectly responsible for the projected deficits by their impact on the new “out” years in the current 75-year projections. These factors combine with the refinements in methodology and economic assumptions to create the current deficit projections. A summary of the factors that caused changing estimates are shown in **Exhibit 1.4**.

Exhibit 1.4
Changes in the Social Security Trust Fund’s Actuarial Balance
From the 1983 Estimates to the 2004 Estimates

	Percent of Taxable Payroll
Balance in 1983 report	+0.02
(#1) Methodology and other minor changes	-0.68
(#2) More pessimistic economic assumptions	-0.22
(#3) Disability assumptions	-0.65
(#4) Forward shift in valuation period	-1.22
(#5) Legislative changes	+0.16
(#6) “Better” demographic assumptions	+0.70
Balance in the 2004 report	-1.89
Source: For 1983-94 changes, see Lawrence H. Thompson, <i>Overview of Social Security Issues</i> (presented at the 1994-1995 Advisory Council on Social Security, Washington, D.C., 1995); for 1994-2003, see Social Security Trustees’ Reports for 1995 through 2004.	

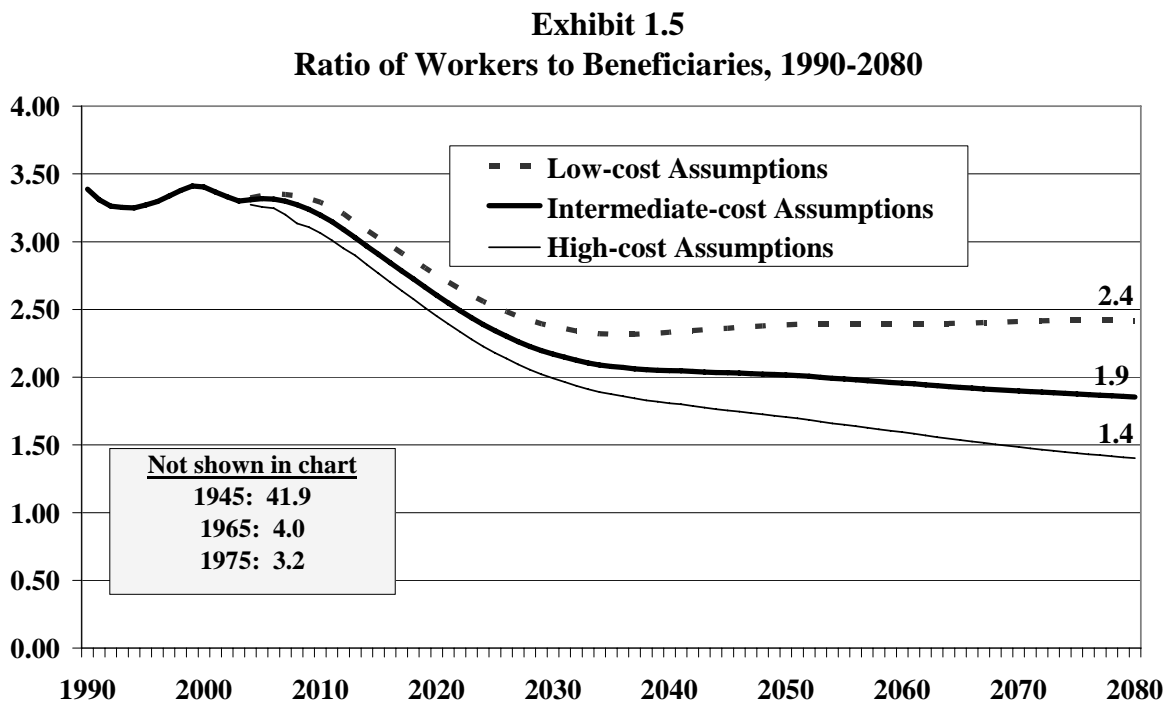
D. MAJOR ASSUMPTIONS AFFECTING PROJECTIONS

Although many factors play a role in projected Social Security shortfalls, the key considerations are demographics. First, the sharp spike in births after World War II – the “baby boom” – reached its height between 1951 and 1966. These “Boomers,” now 39 to 54, will start to retire within the next decade. Since 1966, birth rates have declined dramatically.

Social Security would have financial problems even if the baby boom had never happened. Its problems are rooted in a trend toward ever-greater longevity and earlier retirement, which results in a dramatic decline in the number of workers contributing to the system relative to the number of retirees enjoying the benefits.

1. Basic Arithmetic Behind the Numbers

The economic models employed to project the 75-year actuarial deficit involve hundreds of variables and thousands of equations. However, the key to understanding Social Security financing is based in common sense. Increasing the number of retirees drawing benefits and decreasing the number of workers contributing will, logically, increase Social Security's financial impairment. This decline in the ratio of beneficiaries to workers dramatically demonstrates the system's current financial problems: Today, 3.3 workers support each retiree; by 2040 that number is projected to drop to 2.0 and stabilize at about 1.9 in 2080 (see **Exhibit 1.5**).⁸ This projected decrease, frequently cited as the cause of the emerging deficit, has not changed significantly from 1983 estimates.



Source: 2004 Social Security Trustees' Report, Table VI.B2.

Although disability rates and trends in early retirement are important factors in determining the number of retirees, the key demographic variable determining the number of beneficiaries is life expectancy. Similarly, the key variable for determining the number of workers is the birth rate, although immigration and labor-force-participation rates are important. Both mortality rates and birth rates have been declining recently and are expected to continue to decline.

⁸ An Excel spreadsheet giving more detail on [Exhibit 1.5](#) is available online.

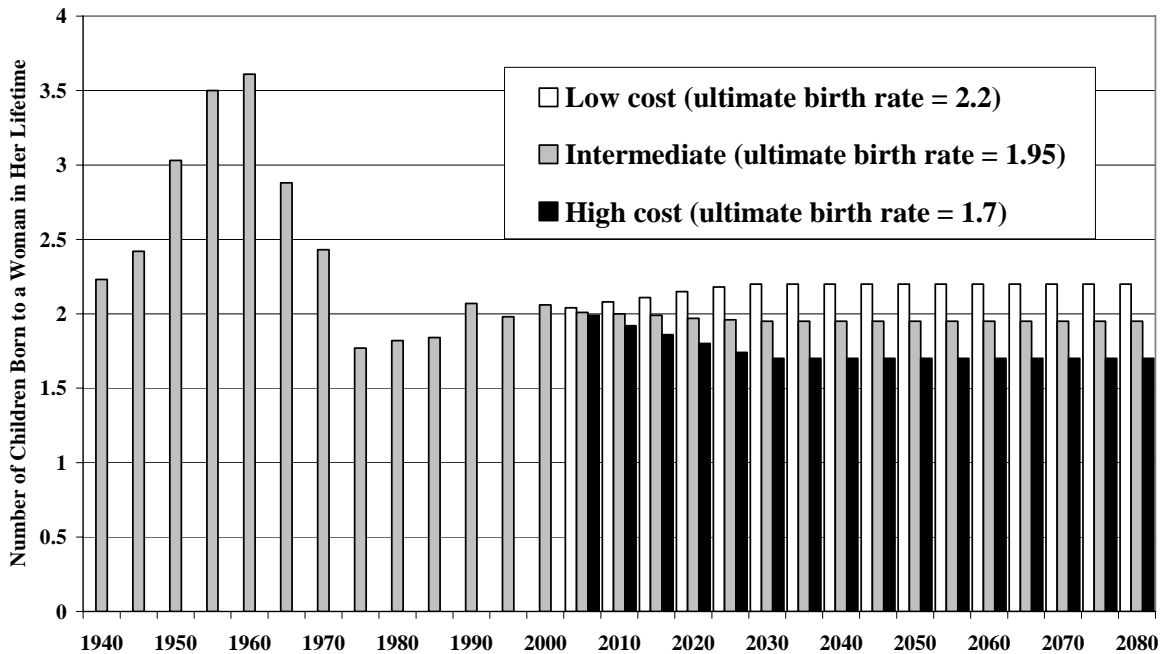
2. Demographics

Birth Rate

The birth rate is not expected to return to the high levels of the two decades following World War II. Several societal changes over the last thirty years that have contributed to reducing the number of children born, including increases in: (1) the availability and use of birth control; (2) the number of women participating in the labor force; (3) the divorce rate; and (4) postponing marriage and childbearing. No significant reversal of these trends is anticipated.

The SSA estimates that birth rates in 2030 will average 2.2 children per woman under the low-cost alternative, 1.95 under the intermediate alternative, and 1.7 under the high-cost alternative. **Exhibit 1.6**⁹ summarizes historical and projected birth rates in the United States.¹⁰

Exhibit 1.6
Historical and Projected U.S. Birth Rates



Source: 2004 Social Security Trustees' Report, Table V.A1.

⁹ An Excel spreadsheet giving more detail on [Exhibit 1.6](#) is available online.

¹⁰ The starting point for projecting future rates of fertility is the recent history of fertility in the United States. During the period 1917 to 1925, the total fertility rate was more than three children per woman. Over time, the total fertility rate has steadily declined with only brief periods of stability. The estimated total fertility rate, based on preliminary data, for 1995 is 2.02.

As shown in **Exhibit 1.7**, varying the birth-rate assumptions – while holding all other variables constant – results in deficits between 1.61 percent and 2.18 percent of payroll.

Exhibit 1.7
Impact of Changes in Demographic Assumptions on the
Estimated Long-Range Social Security Trust Fund Actuarial Balance

Demographic Variable	What Helps the Social Security Trust Fund?	Estimated Long-Range Actuarial Balance			Assumptions Made Under Low-, Intermediate-, and High-Cost Estimates
		Low	Inter-mediate	High	
A. Total fertility rate	Higher fertility rate	-1.61	-1.89	-2.18	Ultimate (2030) fertility rate = 2.2, 1.95, 1.7 children per woman
B. Mortality rates	Higher mortality rate	-1.29	-1.89	-2.59	Reduction in mortality rate = 62%, 42%, 20%
C. Net immigration	More immigration	-1.63	-1.89	-2.08	Annual immigration = 1.30 mil., 0.90 mil., 0.6725 mil.
<p>Note: The intermediate estimate of 1.89 percent is the same intermediate estimate presented in Exhibit 1.1. The low-cost and high-cost figures show the estimated deficit that results from modifying the demographic variable referenced in that row.</p> <p>Source: 2004 Social Security Trustees' Report, Tables VI.D.1 through VI.D.3.</p>					

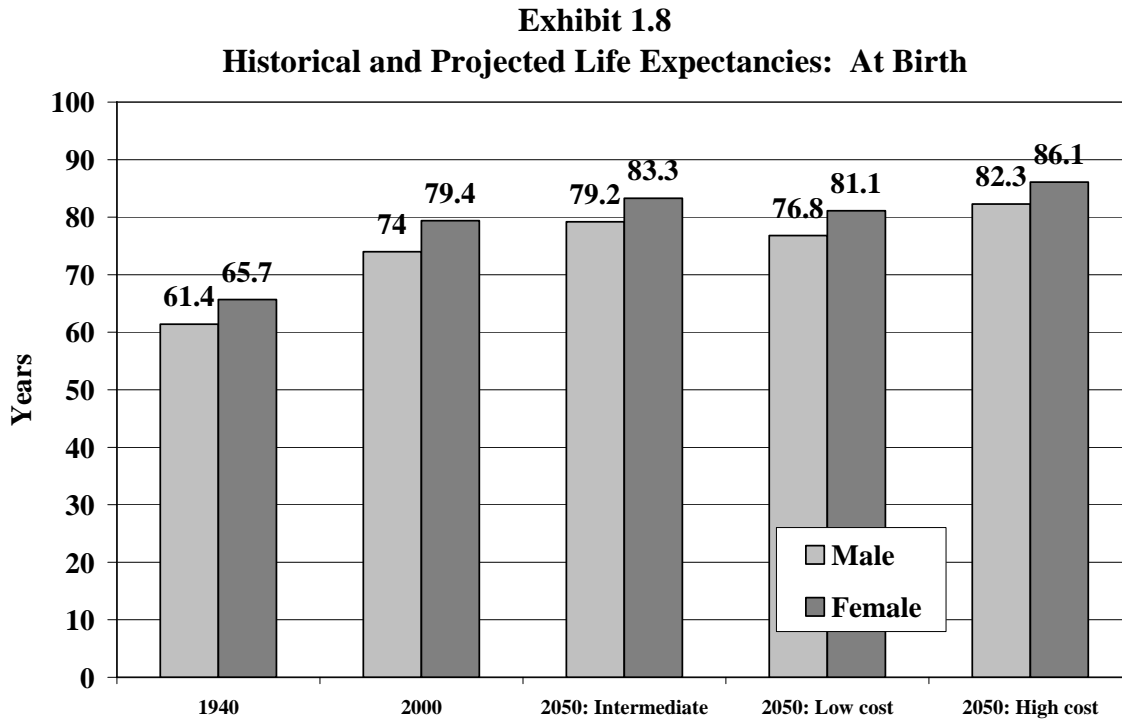
Mortality

Americans are living longer, and that increasing longevity is expected to continue into the future, although demographers disagree about the size of this increase. This uncertainty is reflected in the range of the Social Security projections.¹¹

Under intermediate projections, the mortality rate declines by 42 percent from the beginning of the 75-year projection period to the end. Under low-cost assumptions, the mortality rate declines by 62 percent. Under high-cost assumptions, the mortality rate declines by 20 percent. Holding all other variables constant, these assumptions result in deficits between 1.29 percent and 2.08 percent of payroll (see **Exhibit 1.7**).

¹¹ Demographers trying to predict future life expectancy must take into account a wide variety of factors including advances in medicine, the presence of environmental pollutants, improvements in exercise and nutrition, the incidence of violence, the emergence of new forms of disease, improvements in prenatal care, the prevalence of cigarette smoking, and the misuse of drugs and alcohol. An examination of the data on death rates since 1900 reveals several distinct periods of mortality reduction. Social Security actuaries assume that the death rate will decline steadily for the next 75 years.

Under intermediate projections, a man born in 2000 can expect to live 74.0 years and a woman can expect to live 79.4 years. The comparable figures for 2050 are 79.2 and 83.3 years, respectively. **Exhibit 1.8** illustrates historical and projected at-birth life expectancies.¹²



Source: 2004 Social Security Trustees' Report, Table V.A3.

Another way of illustrating the increased burden of longer life expectancy on the Social Security system is to observe the changes in life expectancy at age sixty-five. A man turning 65 in 1940 could expect to live 11.9 more years; a woman could expect to live 13.2 more years. The SSA estimates that the life expectancies for those turning 65 in 2040 will be 18.8 and 21.4, respectively – an increase of 6.9 and 8.2 years over the 1940 figures.¹³ **Exhibit 1.9** illustrates historical and projected life expectancies at age 65.¹⁴

Although these life-expectancy assumptions are generally considered reliable and realistic, some demographers question these estimates. In general, life expectancy estimates developed by the Census Bureau are consistently *longer* than those used in the Social Security intermediate-cost model.¹⁵ Increased life expectancies place even greater pressure on Social Security resources.

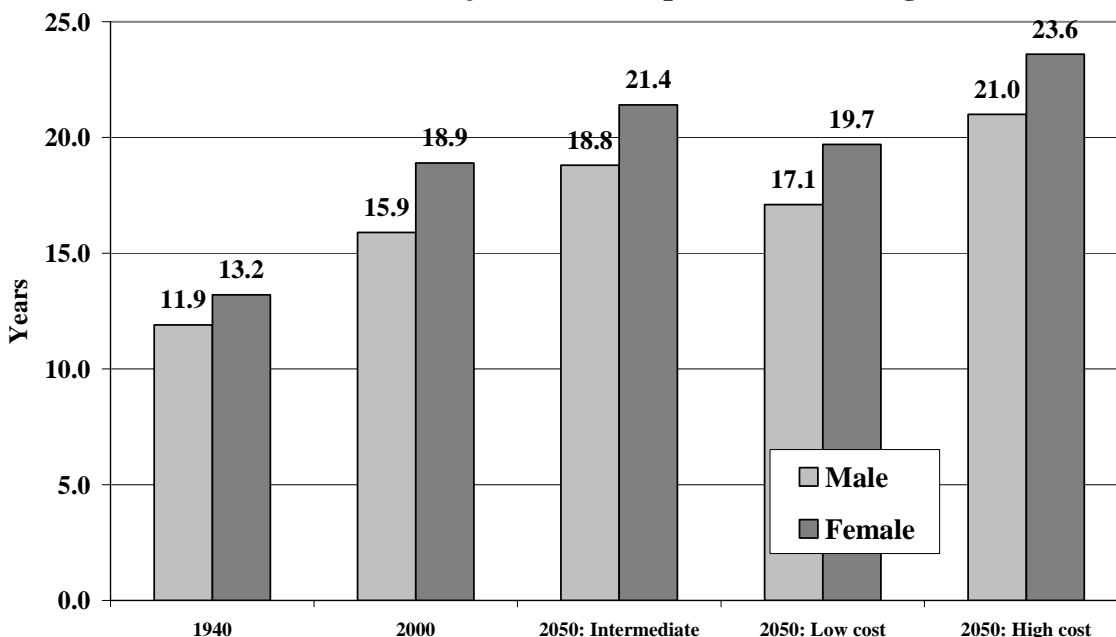
¹² An Excel spreadsheet giving more detail on [Exhibit 1.8](#) is available online.

¹³ Eugene C. Steuerle and Jon M. Bakija, *Retooling Social Security for the 21st Century: Right and Wrong Answers to Reform* (Washington, D.C.: The Urban Institute Press, 1994), 41.

¹⁴ An Excel spreadsheet giving more detail on [Exhibit 1.9](#) is available online.

¹⁵ Ronald D. Lee and Lawrence R. Canter, "Modeling and Forecasting U.S. Mortality," *Journal of the American Statistical Association* 87 (September 1992), 659-671; Ronald D. Lee and Shripad Tuljapurkar, "Stochastic

Exhibit 1.9
Historical and Projected Life Expectancies: At Age 65



Source: 2004 Social Security Trustees' Report, Table V.A3.

Immigration

The SSA estimates that, for 2000 and later, the annual number of total net immigrants will be 1,300,000 under the low-cost alternative, 900,000 under the intermediate alternative, and 672,500 under the high-cost alternative. As shown in **Exhibit 1.7**, varying these assumptions results in deficits of 1.63 percent, 1.89 percent, and 2.08 percent of payroll.

These estimates include both legal and illegal immigration. Legal immigrants are generally assumed to be younger and, therefore, would contribute more into Social Security. Thus, higher levels of legal immigration are considered beneficial.

3. Economic Assumptions

Productivity Growth

Population Forecasts for the United States: Beyond High, Medium, and Low,” *Journal of the American Statistical Association* 89 (December 1994), 1175-1189. The authors concluded that the Social Security life-expectancy assumptions are understated. However, Neil G. Bennett and S. Jay Olshansky (“Forecasting U.S. Age Structure and the Future of Social Security: The Impact of Adjustments to Official Mortality Schedules,” *Population and Development Review* 22 (December 1996), 703-727, suggested that even the low-cost assumptions for life expectancy were too long.

The most important economic variable is estimates of future increases in productivity. Benefits are adjusted annually to keep pace with inflation, but contributions are directly related to the growth rate of wages which– may or may not be related to inflation. Not all wage increases are tied to inflation. For example, wage increases will not be inflationary when there is an increase in worker productivity. When non-inflationary wage increases are due to increased productivity, contributions will increase at a faster rate than payments to beneficiaries.

Changes in productivity growth – called the “real-wage differential” – can have a large impact on the soundness of the Social Security system. The SSA’s intermediate assumptions estimate that productivity will increase at an average annual rate of 1.1 percent in the future. Under the low-cost scenario, the average rate would be 1.6 percent, and under high-cost assumptions, 0.6 percent. **Exhibit 1.10** shows that productivity increases would result in deficits between 1.35 percent and 2.42 percent of payroll.

Exhibit 1.10
Impact of Key Demographic Assumptions on the
Estimated Long-Range Social Security Trust Fund Actuarial Balance

Demographic Variable	What Helps the Social Security Trust Fund?	Estimated Long-Range Actuarial Balance			Assumptions Made Under Low-, Intermediate-, and High-Cost Estimates
		Low Cost	Inter-mediate	High Cost	
A. Productivity growth rate	Higher productivity growth rate	-1.35	-1.89	-2.42	Annual growth in productivity = 1.6%, 1.1%, 0.6%
B. Inflation-adjusted interest rate	Higher inflation-adjusted interest rate	-1.38	-1.89	-2.48	Inflation-adjusted interest rate = 3.7%, 3.0%, 2.2%
<p>Note: The intermediate estimate of 1.89 percent is the same intermediate estimate presented in Exhibit 1.1. The low-cost and high-cost figures show the estimated deficit that results from modifying the demographic variable referenced in that row.</p> <p>Source: 2004 Trustees’ Report, Tables VI.D.4 and VI.D.6.</p>					

Inflation-Adjusted Interest Rate

Another important economic assumption is the rate of return on investments over the inflation rate that the Trust Fund can expect. Under intermediate assumptions, the inflation-adjusted rate of return on assets – if the current requirement to invest in government securities continues – is assumed to be 3.0 percent. Under low-cost assumptions, this rate of return is 3.7 percent. Under high-cost assumptions, it is 2.2 percent. Changes in interest rates result in deficits between 1.38 percent and 2.48 percent of payroll (see **Exhibit 1.10**). These are significant differences but, as discussed later, much larger interest rate effects are possible if the Trust Fund is allowed to invest in equities with projected long-term real returns in excess of 6 percent and if Social Security is able to accumulate a fund balance at a more rapid pace.

E. IMPLICATIONS FOR REFORM

Social Security is a critical component of the financial security of millions of retirees – especially for future generations of the nation’s elderly poor. Under some official projections, Social Security might be unable to fully meet its obligations as early as 2021. Under the best-guess projections, however, this will not occur until 2042. Under the most optimistic official projections, the shortfall may never occur at all.

Even when this predicted shortfall does occur, Social Security benefits will still be paid, but at lower-than-anticipated levels. (Approximately three-quarters of current levels can be paid.)

These figures are not in dispute, but some disagreement exists about how to characterize them. In general, those who wish to preserve the basic structure of the current Social Security system are inclined to characterize the fiscal imbalance as small and manageable. Proponents of more dramatic changes – in particular, advocates of personal or private accounts – are more likely to characterize the current fiscal imbalance as a financial crisis.

* * * * *

Note to Readers: The data presented in this chapter are from the 2004 Trustees’ Report, the most recent available Report at the time of this writing. Data and estimates presented in Chapter 7, in most cases, are based on the 2003 assumptions employed in the latest available estimates from the Social Security Administration’s Office of the Actuary. Estimates of Commission Reform Model Plan 2 presented in Chapter 7 are based on 2001 assumptions. Therefore, the figures will not be strictly comparable.

CHAPTER 2

SOCIAL SECURITY AND POVERTY

SUMMARY

- The reduction in poverty among the elderly is the major accomplishment of the current Social Security system. The poverty rate among the elderly in 2000 was approximately 10 percent, down from 35.2 percent in 1959. If Social Security benefits were not available, and there were no other changes in the economy or government programs, the poverty rate among the elderly would be 48 percent.
- Any reduction in the antipoverty element of Social Security is likely to put increased financial pressure on other government antipoverty programs.
- Social Security provides more than half of the total income for almost 60 percent of beneficiaries. For almost 30 percent, it provides more than 90 percent of income.
- In general, reform plans that move Social Security toward a defined-contribution plan, particularly privatization plans, would reduce the system's features that redistribute income from high-income to low-income households.

A. INTRODUCTION: HISTORICAL PERSPECTIVE

Since the founding of the Social Security system more than seven decades ago, the purpose of Social Security has been debated. Is it a retirement savings plan, or a wealth redistribution system designed to combat poverty among the elderly?

There can be little doubt that the primary objective of Social Security's founders was reducing poverty among the elderly. This is reflected in the words of President Roosevelt:

The Social Security Act offers to all our citizens a workable and working method of meeting urgent present needs and of forestalling future need. It utilizes the familiar machinery of our Federal-State government to promote the common welfare and the economic stability of the Nation.

The Act does not offer anyone, either individually or collectively, an easy life – nor was it ever intended so to do. None of the sums of money paid out to individuals in assistance or in insurance will spell anything approaching

abundance. But they will furnish that minimum necessity to keep a foothold; and that is the kind of protection Americans want.¹⁶

Reducing poverty among the elderly is Social Security's major accomplishment. Many proposed reforms to privatize the Social Security system would offer fewer, if any, guarantees of minimum pensions for low-income retirees. Any benefit formula – such as the current Social Security primary insurance amount (PIA) formula – that shifts funds to low-income recipients would conflict with a privatization plan that includes individual defined-contribution accounts.

Although usually couched in economic terms, the debate about privatization versus the current system has strong social and political ramifications. In the current system, redistribution of benefits to low-income individuals is obscured by complex formulas and near-universal participation: Everybody pays in; everybody gets something out. Some opponents of privatization are concerned that privatization would make the redistribution aspect of the system much more explicit and could dilute support for this successful, poverty-reducing aspect of Social Security.

B. SOCIAL SECURITY'S IMPACT ON POVERTY

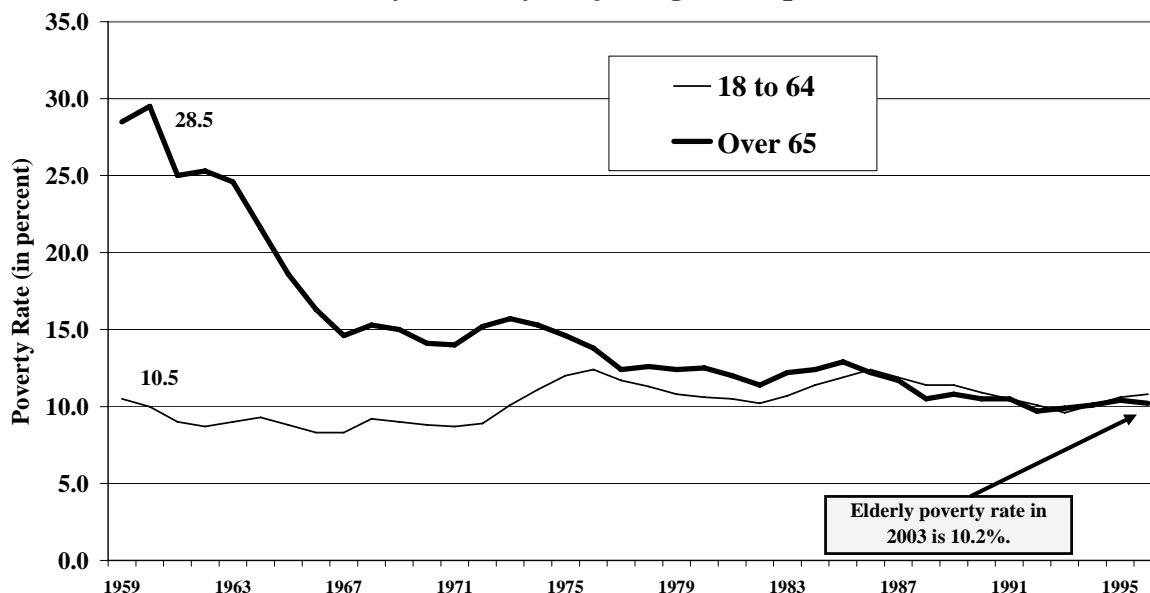
1. Elder Poverty Rates over Time

The poverty rate for the elderly in 1959 was 35.2 percent – more than double the 17.0 percent poverty rate for the general adult population. The poverty rate for the elderly has since dropped by more than two-thirds to 10.2 percent in 2003, approximately equal to the overall adult poverty rate (see **Exhibit 2.1**¹⁷).

¹⁶ Franklin Delano Roosevelt, *Radio Address on the Third Anniversary of the Social Security*, 15 August 1938, available on the Social Security Administration's Web site at www.ssa.gov/history/fdrstmts.html#radio.

¹⁷ An Excel spreadsheet giving more detail on [Exhibit 2.1](#) is available online.

Exhibit 2.1
U.S. Poverty Rates by Major Age Groups, 1959-2003



Source: U.S. Department of the Census, Historical Poverty Tables, Table 3, online at www.census.gov/hhes/poverty/histpov/hstpov3.html.

Poverty rates increase with age. For example, the 2000 poverty rate for those ages 65-69 was 8.3 percent, and 13.7 percent for those 75 and over (see **Exhibit 2.2**). This increase could mean additional strains on social support programs in the future, particularly in light of projections that the proportion of the population that is over 85 will more than triple – from 1.5 percent of the population in 2000 to 5.0 percent in 2050.¹⁸

¹⁸ U.S. Department of the Census, *U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin*, Table 2a. “Projected Population of the United States, by Age and Sex: 2000 to 2050,” online at www.census.gov/ipc/www/usinterimproj.

Exhibit 2.2
Elderly Poverty Rates by
Gender, Age, Race and Marital Status, 2000

	Total	Male	Female
By Age:			
65 +	10.2	7.5	12.2
65-69	8.3	6.7	9.8
70-74	9.6	7.4	11.3
75-79	10.8	7.1	13.4
80-84	11.6	8.3	13.9
85+	13.7	10.6	15.4
By Marital Status: (65 +)			
Married	4.5	4.5	4.4
Single	17.1	15.2	17.8
By Ethnicity:			
White	8.9	6.5	10.8
African-American	22.3	17.1	25.8
Hispanic	18.8	17.6	25.8
Source: Social Security Administration, <i>Income of the Population 55 and Older, 2000</i> , online at www.ssa.gov/policy/docs/statcomps/income_pop55/2000 .			

2. Elder Poverty Rates by Gender, Race, and Marital Status

Although, generally, poverty rates for the elderly now match the rest of the adult population, serious pockets of poverty continue to exist – particularly among widows, the very old, and minorities. As shown in **Exhibit 2.2**, the poverty rate of women 65 and older (12.2 percent) is much higher than the poverty rate for men 65 and older (7.5 percent).

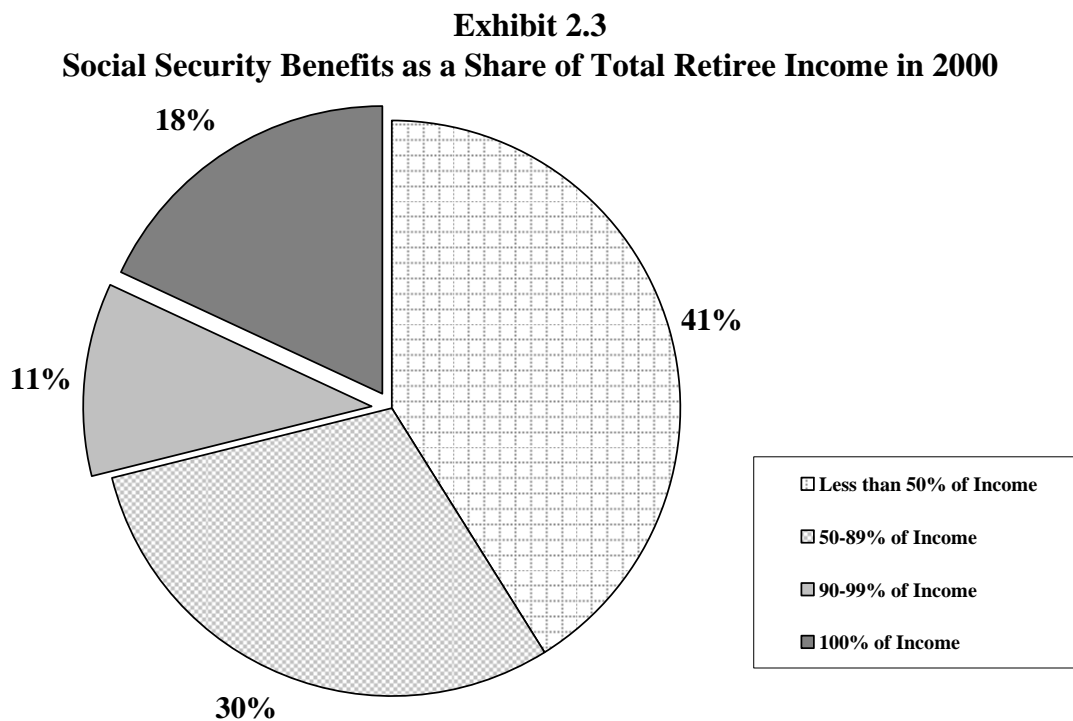
In 2000, the poverty rate for white Americans was 8.9 percent. African-American elderly experienced a poverty rate of 22.3 percent – two and half times higher than for white Americans. Elderly Hispanic Americans had a poverty rate of 18.8 percent which – although below that for elderly African-Americans – was more than double the rate for white Americans.

For both men and women, single individuals have much higher poverty rates than married couples. Single men have a poverty rate more than three times as great as the poverty rate for married men. Single women (including widows and divorcees) have a poverty rate more than four times the poverty rate for married women.

3. The Impact of Social Security on Poverty

Social Security is an important component of retirement income. For approximately two-thirds of beneficiaries, Social Security provides more than half of total income. More than one-quarter of all beneficiaries get 90 percent of their income from Social Security. Social Security supplies 100 percent of retirement income for 18 percent of beneficiaries. **Exhibit 2.3** illustrates Social Security's pivotal role in reducing poverty.¹⁹

Social Security keeps more than 13 million of the elderly above the poverty line. If Social Security benefits were not available, the poverty rate for those 65 and over would jump from 8.5 percent to 48 percent (see **Exhibit 2.4**²⁰).

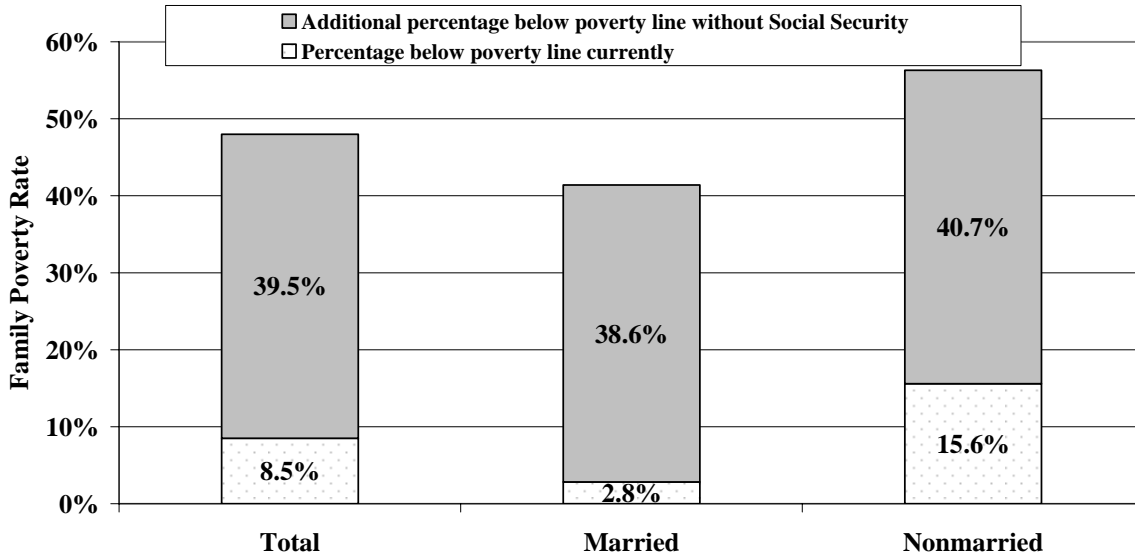


Source: Social Security Administration, Income of the Population 55 and Older, 2000, Table 6.A2, online at www.ssa.gov/policy/docs/statcomps/income_pop55/2000/sect6.html#t6_A2.

¹⁹ An Excel spreadsheet giving more detail on [Exhibit 2.3](#) is available online.

²⁰ An Excel spreadsheet giving more detail on [Exhibit 2.4](#) is available online.

Exhibit 2.4
Elderly Poverty Rates With and Without Social Security Benefits,
2000



Source: Social Security Administration, *Income of the Population 55 and Older, 2000*, Table 8.3, "Poverty Status of Persons 65 or Older Based on Family Income," online at www.ssa.gov/policy/docs/statcomps/income_pop55/2000/sect8.html#t8_3.

Any plan to reform Social Security must consider the impact on benefits paid to the elderly poor and those near the poverty line. Reducing Social Security benefits paid to low- and moderate-income elderly could also place additional financial burdens on federal, state, and local government assistance programs and charitable organizations that help the elderly poor. This would reverse the trend away from the elderly relying on public assistance as a share of total income, which declined from 5 percent in 1959 to less than 1 percent in 2000.²¹

No matter what other economic benefits may arise from any given reform, reality dictates that some redistribution and some guaranteed minimum income for beneficiaries is needed to maintain the substantial decline in elder poverty accomplished by Social Security.²²

²¹ Social Security Administration, *Income of the Population 55 and Older, 2000*, Table 8.3, "Poverty Status of Persons 65 or Older Based on Family Income."

²² Chile's privatized Social Security system – often cited as a model for privatizing the U.S. system – includes a floor on benefits, thereby guaranteeing the low-income elderly a minimum pension. Jose Piñera, "The Success of Chile's Privatized Social Security," *Cato Policy Report* 17 (July-August 1995).

4. The Special Problem of Elderly Widows

Although Social Security rules are gender neutral, several factors make Social Security less adequate for women than for men. Historically, women have worked fewer years than men and generally have earned less than men; therefore, women on average receive significantly lower monthly benefits than men. In addition, women tend to live longer than men, which means that any non-annuitized personal savings must be stretched more thinly over a longer retirement period. As a result of these factors, elderly poverty is particularly acute among elderly women. In 2000, the poverty rate for older women was more than 60 percent larger than the poverty rate of older men.

Although the poverty rate for elderly married couples is low, the poverty rates for elderly women who are divorced, separated, never married, or widowed is more than five times higher than for married women (see **Exhibit 2.5**²³). Numerically, the most important of these categories is widows, who account for nearly two-thirds (64 percent) of elderly women in poverty.²⁴

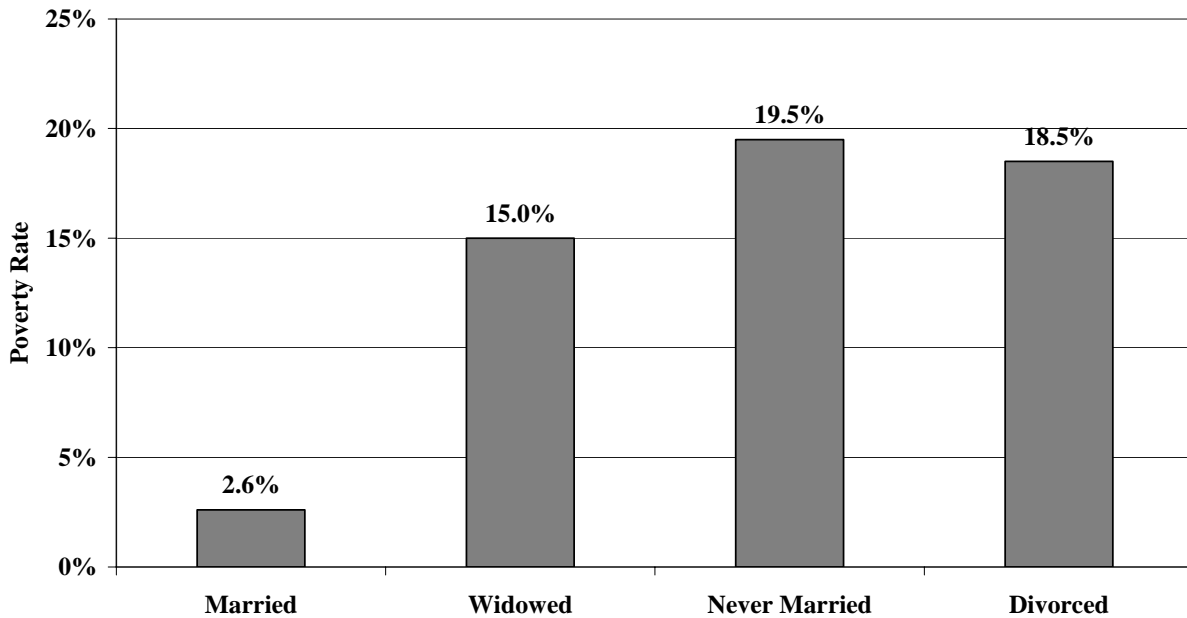
One criticism of Social Security benefit payments is that the surviving spouse from one-earner marriages receives more generous benefits than do earners from two-earner marriages. On the death of the working spouse, a non-worker surviving spouse is entitled to two-thirds of the couple's retirement benefit. However, a surviving spouse who earned half of the couple's earnings is entitled to only one-half of the couple's combined benefit.

Concerns about this unequal treatment and about poverty among elderly widows have spawned several proposals to increase widows' benefits; many would increase surviving spouse benefits – currently between one-half and two-thirds of the couple's combined benefit – to 75 percent of the couple's combined benefit."

²³ An Excel spreadsheet giving more detail on [Exhibit 2.5](#) is available online.

²⁴ Steven Sandell, *Adequacy and Equity of Social Security* (presented to the 1994-1995 Advisory Council on Social Security, Washington, D.C., October 1994).

**Exhibit 2.5
Poverty Rates of Elderly Women, 2000**



Source: Social Security Administration, *Income of the Population 55 and Older, 2000*, Table 8.3, "Poverty Status of Persons 65 or Older Based on Family Income," online at www.ssa.gov/policy/docs/statcomps/income_pop55/2000/sect8.html#t8_3.

C. OTHER FACTORS AFFECTING RETIREMENT SECURITY

1. Pensions

The marked decline in elder poverty is not solely attributable to Social Security. Some like to refer to Social Security as one leg of the “three-legged stool” of retirement income; the other two are private saving and pensions, which also have grown.

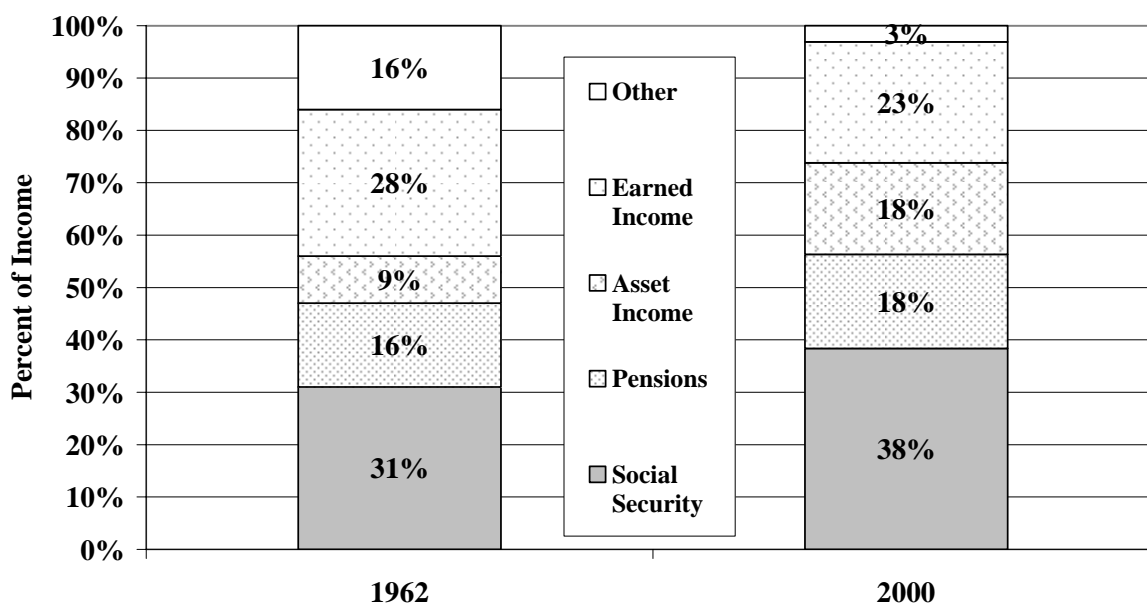
From 1962 to 1994, Social Security, as a percentage of total income for the elderly, has grown from 31 to 38 percent (see **Exhibit 2.6**²⁵). Income from pensions – including private pensions; annuities; government employee pensions; Railroad Retirement; IRAs; Keogh plans, and 401(k) plans – has increased from 9 percent to 18 percent. Pension coverage has also become more widespread. In 1962, only 18 percent of the elderly received pension income; by 1994, this increased to 43 percent.²⁶ Currently, 41 percent of the elderly receive pension income.²⁷

²⁵ David M. Cutler, “Reexamining the Three-Legged Stool,” in *Social Security: What Role for the Future?* Edited by Peter A. Diamond, David C. Lindeman, and Howard Young (Washington, D.C.: National Academy of Social Insurance, 1996). An Excel spreadsheet giving more detail on **Exhibit 2.6** is available online.

²⁶ Social Security Administration, *Income of the Aged Chartbook* (Washington, D.C.: Office of Research and Statistics, February 1996).

²⁷ Social Security Administration, *Income of the Population 55 and Older, 2000*, Table 1.1, online at www.ssa.gov/policy/docs/statcomps/income_pop55/2000/sect1.html.

Exhibit 2.6
Sources of Income for the Population 65 and Over, 1962 and 2002



Source: Social Security Administration, *Income of the Population 55 and Older, 2000*, Table 7A, "Poverty Status of Persons 65 or Older Based on Family Income," online at www.ssa.gov/policy/docs/statcomps/income_pop55/2000/sect7.html#t7_1.

However, in assessing overall retirement security, it is important to recognize the increasing number of defined-contribution plans relative to defined-benefit plans. Participation in defined-benefit plans – more commonly available to employees of large corporations – has declined over the last three decades. In 1979, one-third of workers with pensions were in defined contribution plans and two-thirds were in defined benefit plans. By 1998, this pattern of coverage had nearly completely reversed itself.²⁸

The costs and risks of a defined-benefit plan are often too high for small- and medium-sized firms. Without defined-contribution plans, many employers would not offer any pension plan. All other things being equal, the defined-contribution plans generally increase retirement security, but they do not provide the same type of retirement security as Social Security.

Social Security is a defined-benefit retirement plan, and many employees depend on Social Security to provide a basic minimum annuity benefit for their retirement. Benefits from a defined-contribution plan depend primarily on market returns, which may be higher than rates of return on a defined-benefit plan, but include no guaranteed minimum benefits or adjustments for adverse circumstances.

²⁸ Stephanie R. Aaronson and Julia L. Coronado, *Are Firms or Workers Behind the Shift Away from DB Pension Plans?* Department of Labor, Employee Benefits Security Administration, July 2004, online at <http://www.dol.gov/ebsa/pdf/aaronsoncoronado.pdf>.

Under Social Security, participants face far less risk than they would under a defined-contribution plan. Initial Social Security benefits are tied to prior wages and overall wage growth and, therefore, guarantee certain income replacement rates. Thereafter, benefits are adjusted for growth in the consumer price index, offering protection against inflation.

2. Savings

Non-retirement savings are the third critical aspect of retirement security. Income from elders' savings has doubled since 1962, from 9 to 18 percent of total income. Nevertheless, most analysts agree that Americans do not save enough to generate retirement income, although they disagree about the size of the shortfall.

One rule of thumb used by financial planners is that retirement income should be about two-thirds of pre-retirement income. Many factors must be taken into account. For example, taxes and housing costs are generally lower than their pre-retirement levels, but medical expenses could be much higher.

D. IMPACT OF PROPOSALS ON POVERTY

Like the federal income tax, the Social Security system plays a major role in redistributing income from high-income to low-income families. The Social Security system has worked as intended by providing income security for retirees, particularly important for the low-income elderly. Without Social Security, 48 percent of older Americans would live in poverty.

If Social Security's major public policy objective is eliminating poverty among the elderly, a more targeted system could be devised. However, efforts to more closely target benefits to low-income individuals would encounter economic and political problems. Targeting benefits to the poor through "means testing" would create economic incentives for individuals to work less, accumulate less, and hide wealth. Politically, means testing has two problems: (1) it tends to pit the wealthy against the poor; and (2) the stigma of a "welfare" program, makes the program unattractive to some beneficiaries.

Proponents of privatization argue that Social Security reform does not have to be a zero-sum proposition. To the extent that Social Security reforms require pre-funding of benefits and that the funds are invested in equity securities – whether in individual or system-wide accounts – more Social Security benefits can be paid using smaller contributions. Although unlikely to have any significant impact on the overall size of the economy, privatization is likely to increase resources flowing into the Social Security system. Thus, it would be possible for a reformed Social Security system to make low-income households better off, even with less redistribution.

CHAPTER 3

SOCIAL SECURITY AND INDIVIDUAL FAIRNESS

SUMMARY

- Social Security was created as a pay-as-you-go system. Because pre-funding of retirement benefits is limited, the return on the system is tied primarily to growth in population and productivity, not return on invested assets.
- The rate of return earned on an individual's Social Security contributions is affected by gender, marital status, and income level – social policy considerations, which weaken the direct link between benefits and contributions. Married couples benefit from spousal and survivor benefits. Low-income individuals benefit from the Social Security benefit formula, which includes a declining fraction of income in the calculation, reducing the rate of return for high-income beneficiaries.
- Most of today's Social Security recipients are receiving – and will continue to receive – more than their actuarially fair share of benefits.
- Future retirees, particularly singles, two-earner couples and those with high incomes, will earn below-market rate returns, even if all promised benefits can be paid.

A. INTRODUCTION

In addition to its role as a wealth redistribution system designed to combat poverty among the elderly, Social Security is viewed as a retirement savings program. When Social Security was founded, most workers were not covered by employer-sponsored pension plans. The majority of pension plans that did exist were defined-benefit plans. No explicit deductions from wages funded these plans, and workers were not involved in the fund's investment strategies. Traditionally, most Americans saved in banks, where interest rates were set by regulation. There was little direct investment in the stock market, and mutual funds were available only to a small number of investors.

Today most pension plans are defined-contribution plans and many families, either directly or through mutual funds, invest in a wide array of financial instruments. This greater financial sophistication of the American public makes it increasingly difficult to avoid the comparisons between Social Security and other investment and retirement plans. Increasingly, questions are raised about whether Social Security provides a good return on investment. Many commentators refer to this as the “money's worth” issue.

Typically, the rate of return on Social Security is calculated by determining the rate of interest on an account receiving deposits equal to Social Security taxes and making distributions equal to Social Security benefits. If the computed rate of return exceeds the rate of return available in financial markets, the Social Security recipient receives his or her money's worth.

A related statistic – the net Social Security transfer – shows the dollar value of participating in the Social Security system. If the Social Security rate of return exceeds the market rate of return, the net transfer is positive. If the market rate of return exceeds the rate of return on Social Security, the net transfer is negative.

B. SOCIAL SECURITY: FROM BOOM TO BUST

1. High Returns During Start-Up

Social Security is routinely considered the most popular program the federal government offers: Approximately 90 percent of retirees receive a monthly check from Social Security,²⁹ averaging about \$955.³⁰ The majority of these beneficiaries did not contribute into the system amounts sufficient to create these benefits. Thus, most current beneficiaries have received a return on their contributions, including both employer and employee shares, that is far greater than if they had invested on their own.

The founders' decision to not allow the Trust Fund to accumulate any significant assets has made this possible. One characteristic of any pay-as-you-go retirement plan is that the first generation of beneficiaries receives benefits with an actuarial value far in excess of their contributions.³¹ Large increases in benefits through the early 1970s have effectively expanded the Social Security start-up period.

2. Low Returns After Start-Up

As a pay-as-you-go system matures, the surplus benefits available from the start-up are no longer available. The returns on investment for new retirees are lower and are expected to continue to decline. If the public's enthusiasm for Social Security during this start-up phase was attributable to the initial high returns, its future popularity would be expected to decline as the system matures and returns decrease. Similarly, reluctance to touch this "third rail" of American politics should also dissipate as more individuals, particularly young people, feel shortchanged.

²⁹ Social Security Administration, *Income of the Population 55 and Older, 2000*, Table 1.1, "Percentage With Income From Specified Source, by Age, Marital Status, and Sex of Nonmarried Persons," online at www.ssa.gov/policy/docs/statcomps/income_pop55/2000/sect1.html#t1_1.

³⁰ Social Security Administration, data online at www.ssa.gov/policy/docs/quickfacts/stat_snapshot.

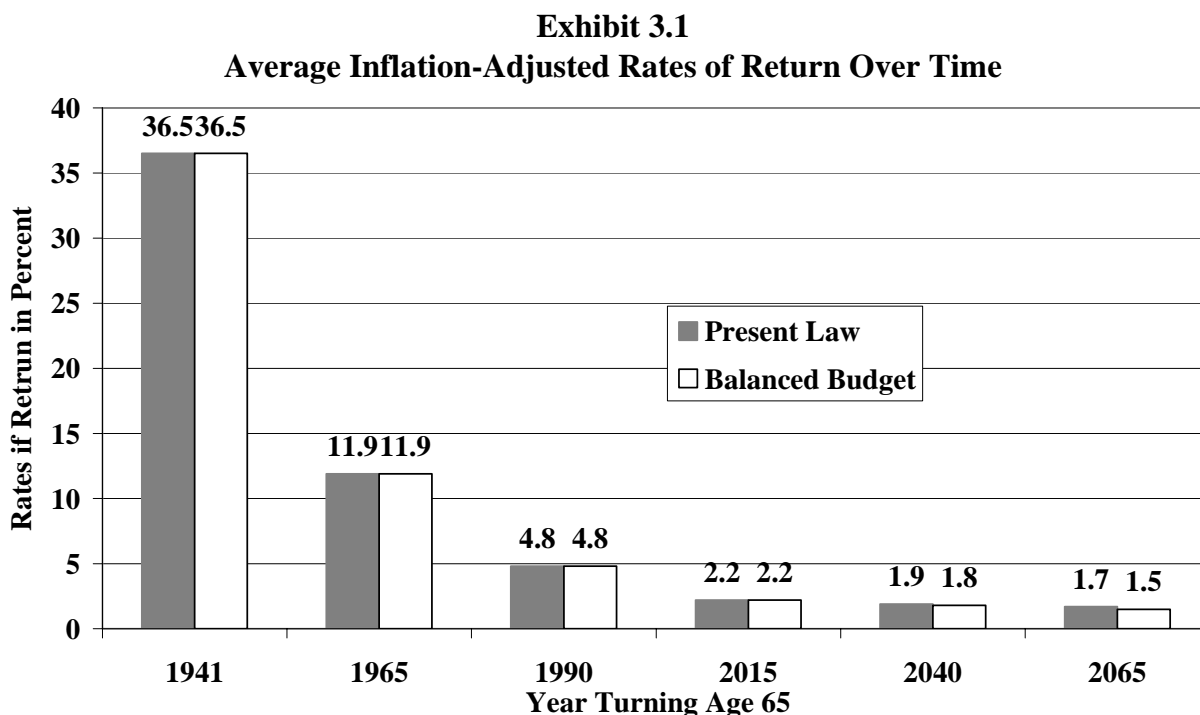
³¹ The first recipient of Social Security benefits, Ida Fuller, paid \$22 in Social Security taxes and received approximately \$20,000 in benefits. See "Your Stake in the Fight Over Social Security," *Consumer Reports* (September 1981), 503-510.

As first demonstrated by Nobel laureate Paul Samuelson in 1958, the return on investment from a mature pay-as-you-go system is generally far less than the return on an investment in capital assets.³² Samuelson showed that a strictly pay-as-you-go Social Security system will generally yield returns equal to the sum of (1) the growth rate of the population; and (2) the growth rate in productivity.

Currently, Social Security is a hybrid system with elements of pay-as-you-go and a pre-funded system. However, as currently structured, the pre-funded component does not improve the rate of return on contributions because Trust Fund investments are limited to U.S. government securities. Achieving a rate of return comparable to private sector investment plans, would require increased funding of benefits and removing restrictions against investing only in Treasury securities.

3. Estimates of Declining Returns

The Social Security rate of return has experienced a dramatic decline. (See **Exhibit 3.1**³³ and separate calculations in **Exhibit 3.2**.) In its earliest years, Social Security, benefits were spectacularly large in comparison with contributions paid into the system. For example, the 1941 rate of return was 36.5.



Source: Dean R. Leimer, *A Guide to Social Security Money's Worth Issues* (ORS Working Paper No. 67) Division of Economic Research, Social Security Administration (April 1995).

³² Paul A. Samuelson, "An Exact Consumption-Loan Model of Interest With or Without the Social Contrivance of Money," *Journal of Political Economy* (1958): 467-482.

³³ An Excel spreadsheet giving more detail on [Exhibit 3.1](#) is available online.

Rates of return in the 1960s and 1970s were still much higher than one could expect from a private pension plan or from a mature pay-as-you-go system. The rate of return for a single male was 10.97 percent in 1960, declined to 1.82 percent in 1995, and is projected to be 1 percent by 2030.

Exhibit 3.2
Impact of Net Social Security on Wealth, Selected Years

A. Real Rate of Return

Type of Beneficiary	Year of Retirement				
	1960 (%)	1980 (%)	1995 (%)	2010 (%)	2030 (%)
Single male	10.97	4.24	1.82	1.16	1.00
Single female	12.63	5.54	2.89	2.09	1.90
One-earner couple	14.64	7.66	4.79	3.64	3.37
Two-earner couple	13.00	6.16	3.54	2.52	2.29

B. Net Social Security Transfers

Type of Beneficiary	Year of Retirement				
	1960 (\$000)	1980 (\$000)	1995 (\$000)	2010 (\$000)	2030 (\$000)
Single male	36.5	39.3	-5.1	-36.3	-56.2
Single female	59.4	80.5	28.1	-0.4	-13.8
One-earner couple	89.9	158.9	122.5	107.3	117.0
Two-earner couple	88.7	133.3	78.6	39.8	29.4

Source: Eugene C. Steuerle and Jon M. Bakija, *Retooling Social Security for the 21st Century: Right and Wrong Answers to Reform* (Washington, D.C.: The Urban Institute Press), Table A-9.

Exhibit 3.2, Part B, demonstrates the net Social Security transfers over this period. The net transfer is expressed as the net benefit or cost to the beneficiary based on contributions paid and benefits received, comparing the internal rate of return on Social Security to the market rate of return. For example, in 1960 a single male received a net benefit of \$36,500 from Social Security, but in 1995, a single male would have contributed \$5,100 more – in the form of direct contributions and reduced returns – than he could expect in benefits. By 2030, a single male can expect to have paid \$56,200 more in contributions and reduced returns than he could expect in benefits.³⁴

³⁴ In Exhibits 3.2, 3.3, and 3.4, the assumed rate of return (adjusted for inflation) is 2 percent.

The high average rates of return before the 1990s reflect a continuing start-up phase in which large benefit increases were paid without increasing Social Security tax collections. The lower average returns after the 1990s represent the norm for a mature pay-as-you-go system. The current relatively small amount of pre-funding will not alter this return pattern as long as investments are restricted to government securities. Many future beneficiaries view participating in the current Social Security system as decreasing their family wealth.

C. REDISTRIBUTION AND MONEY'S WORTH WITHIN GENERATIONS

1. Benefit Computation

Social Security calculates benefits based on an individual's earnings using a percentage that declines as earnings increase, thereby creating a rate-of-return disparity between high- and low-income households. The key point in this calculation is that, the level of contributions into the system is substantially divorced from benefit calculations, intentionally creating an opportunity for redistribution based on social policy considerations. This redistribution is called into question in the "money's worth" debate.

Benefits are calculated in a two-step process. First, earnings are indexed upward to account for the general increase in wages³⁵ from the time they were earned shortly before retirement, averaging the highest earnings from a specified number of years. Second, the indexed earnings used to compute Average Indexed Monthly Earnings (AIME) are multiplied by certain fractions to arrive at an amount known as the Primary Insurance Amount (PIA).

For example, for individuals who first became eligible for Social Security in 2004, the PIA (on which all benefits are based) is the sum of:

1. 90 percent of the first \$612 of AIME.
2. 32 percent of AIME over \$612 and through \$3,869.
3. 15 percent of AIME over \$3,869.

The dollar amounts demarcating the ranges to which the percentages apply are commonly referred to as the "bend points" of the PIA formula. Bend points are also adjusted annually by an index of average wages.³⁶ This calculation results in low-income beneficiaries generally receiving higher rates of return than high-income beneficiaries.³⁷

³⁵ In general, wage inflation is greater than price inflation. Chapters 5 and 7 discuss proposals to replace this wage indexing with price indexing.

³⁶ Benefit formula bend points for 1979 through 2005 are available from the Social Security Administration online at www.ssa.gov/OACT/COLA/bendpoints.html.

³⁷ Social Security has a special minimum benefit (not reflected in the above formula), but as of December 2001 only 79,000 workers and their dependents and survivors received any additional benefit as a result of that formula. On average, this minimum benefit increased monthly benefits by \$39 over what they would

In the third step in calculating actual retirement benefits, the PIA is indexed to the rate of price inflation, as measured by changes in the consumer price index (CPI), from the beginning of the retirement period to the year in which benefits are paid.

2. How Social Security Redistributes Wealth

By Marital Status and Gender

Beneficiaries receive different returns from Social Security based on gender and marital status. Married couples generally do better under Social Security than single individuals. For example, the average-wage, one-earner couple has the highest rate of return at 4.31 percent, where the average-wage single male and female have rates of return of 1.59 and 2.56 percent, respectively. (See **Exhibit 3.3**) The rate of return for both men and women declines more the further one looks out in time.

Most of this couples' advantage comes from the availability of spousal and survivor benefits. Spouses are eligible for the greater of (1) the benefit they earn on their own; and (2) the amount they are entitled to as spouse or a surviving spouse. Contributions to the system by a one-earner couple can result in benefits generating a greater rate of return because the surviving, non-worker spouse can continue to receive benefits. A single individual's rate of return on investment would be lower because benefits stop at his or her own death. One-earner couples also receive a greater return than two-earner couples based on their lower contributions, even with comparable benefits.

The availability of spousal benefits diminishes the value of Social Security benefits for two-earner couples relative to one-earner couples – particularly when there is a significant disparity between spouses' incomes. If the spousal benefit is larger than the benefit based on the surviving spouse's own earnings, the survivor's contributions have earned no return. If the survivor's earnings generate a greater benefit, the additional contributions made by the deceased spouse decreases the couple's rate of return as does the "net" benefit – which is the increase over the benefits the survivor would have received as a spousal benefit. Both factors create a lower rate of return, as shown in **Exhibit 3.3**.

otherwise be. See, Kelly A. Olsen and Don Hoffmeyer, Social Security's Special Minimum Benefit, *Social Security Bulletin*, July 2003; online at www.ssa.gov/policy/docs/ssb/v64n2/v64n2p1.pdf.

Among single individuals, women generate larger returns than men because, they generally live longer and draw more total benefits based on the same level of contributions, as indicated in **Exhibit 3.3**.

Exhibit 3.3
Impact of Social Security on Wealth for
Average-Income Beneficiaries Turning 65 in 2000

	Net Transfers (\$)	Rates of Return (%)
Average-wage single male	-14,092	1.59
Average-wage single female	19,831	2.56
Average-wage one-earner couple	119,418	4.31
Two-earner couple (low and average wage)	67,319	3.11
Two-earner couple (average and high wage)	7,025	2.07
Source: Steuerle and Bakija, <i>Retooling Social Security</i> , Tables A-6 and A-9.		

By Income

Although household status accounts for a good deal of variation, low-income beneficiaries do better than their high-income counterparts. Although contributions are made at a fixed rate based on earnings, benefits are calculated using only 15 percent of average indexed monthly earnings over the second bend point (\$3,689, or \$44,268 annually, in 2004). This creates a lower rate of return as income increases, as illustrated in **Exhibit 3.4**. Income taxes paid on Social Security benefits received by higher income retirees further reduces rates of return.

Exhibit 3.4
Impact of Social Security for Low-, Middle-, and
High-Income Beneficiaries Turning 65 in 2000

A. Real Rates of Return

	Low Income (%)	Middle Income (%)	High Income (%)
Single male	2.02	1.15	-0.07
Single female	2.77	2.05	0.81
One-earner couple	4.39	3.54	2.39

Exhibit 3.4 (continued)
B. Net Social Security Transfers
(in dollars)

	Low Income (\$)	Middle Income (\$)	High Income (\$)
Single male	-487	-42,405	-193,569
Single female	25,124	-2,930	-136,837
One-earner couple	95,447	116,724	54,350
Source: Steuerle and Bakija, <i>Retooling Social Security</i> , Tables A-6 and A-9.			

D. ECONOMIC FAIRNESS ISSUES FOR SOCIAL SECURITY

If “fairness” is defined as receiving a “fair return” on contributions into the Social Security system, the following four economic fairness issues are driving perceptions about the need to change Social Security:

1. *Declining returns over time.* In general, the rate of return per recipient in Social Security has declined since inception and it will decline further. In general, current Social Security recipients have received a good deal from Social Security. However, as the average rate of return declines, many, but not all, Social Security recipients will be getting a poor deal from Social Security.
2. *Below-market returns.* The average rates of return will decline below those available in financial markets because Social Security remains largely a pay-as-you-go system. However, even if Social Security became a fully funded system, its rates of return could not significantly improve unless the restriction to invest solely in U.S. government securities is lifted or payroll taxes are significantly increased.
3. *One-earner couples versus single individuals and two-earner couples.* The spousal benefit provides tremendous value at little or no cost to beneficiaries. Even as Social Security rates of return are projected to decline rapidly, one-earner couples are projected to receive a very beneficial deal in the future.
4. *Low-income versus high-income individuals.* The formula for calculating basic benefits guarantees that low-income households get a better return on investment. As Social Security returns decline generally over time and privatization is considered, the redistribution aspects of Social Security are likely to receive increased attention.

E. IMPLICATIONS FOR REFORM

Reform plans to privatize Social Security would move the program away from a pay-as-you-go social insurance program and make it more like a defined-contribution pension plan. To the extent the system moves toward becoming a defined-contribution plan, there will be less redistribution (1) from high- to low-income earners; (2) from single individuals to married couples; and (3) from two-earner couples to one-earner couples. If assets used to pre-fund retirement benefits may include private securities, rates of return will not only equalize, they will tend to rise.

Efforts at redistribution run counter to privatization; redistribution tends to hurt economic growth for exactly the same reasons that privatization helps it. Without a welfare component, Social Security contributions would become less like taxes and more like any other non-cash component of wages. Mandatory contributions would have a less adverse impact on labor supply, and Social Security reform could help the economy by removing the disincentives to save.

The critical policy considerations for Social Security are no different from those facing the federal government as a whole: Efforts to share wealth tend to reduce the overall amount of wealth in the economy. There is no right answer. There is no certainty. The proper balance in the tradeoff between helping low-income individuals and achieving economic growth will depend on subjective social preferences for redistribution as well as the uncertain amount of economic growth that might be sacrificed for any given amount of redistribution.

Even the staunchest advocates of privatization have refrained from calling for the elimination of government retirement programs, implicitly acknowledging that government has a role to play. By making contributions mandatory, government can: (1) force people to save for their retirement when they might not otherwise do so; or (2) force them to save more than they might otherwise do to increase the overall rate of capital formation. Government can also achieve economies of scale and minimize administration costs. By compelling annuitization at retirement, the government can help overcome the “adverse selection” problem that is impeding the private annuity market from broadening on its own. There may also be some paternalism as well: Left to their own devices, some individuals might not save enough for their own retirement, so government intervenes.

CHAPTER 4

SOCIAL SECURITY AND THE ECONOMY

SUMMARY

- Social Security benefits currently comprise approximately 4.3 percent of gross domestic product (GDP). Over the next three decades Social Security benefits are expected to rise to 6.5 percent of GDP.
- Social Security has a multitude of potential impacts on the U.S. labor market. Although economists do not believe that Social Security taxes have much impact on the overall labor supply, they likely do affect labor supplied by individuals for whom working is not a necessity. Also, Social Security benefit rules appear to affect early retirements and the amount of work retirees plan to perform during retirement.
- Increased saving is a key to increased capital formation, productivity, and long-term economic growth.
- A start-up, pay-as-you-go government-sponsored retirement plan reduces saving by participants. However, it is less certain that a mature pay-as-you-go plan discourages savings.
- The current Social Security system may have some detrimental impact on national savings, and some reforms have the potential to increase savings, but the magnitude of these effects is subject to debate.

A. INTRODUCTION

Social Security's impact on the economy is felt largely through how it affects the labor supply and the savings rate. Most families pay more in Social Security taxes than they do in income taxes. Therefore, to the extent that taxes affect employment, the payroll tax is more likely than the income tax to have a detrimental impact on the labor supply.

The impact of Social Security on national savings also receives much attention. Most economists agree that stronger long-term economic growth is fueled by savings. Just as some economists believe that the federal income tax hurts the savings rate, some believe that Social Security is responsible for an anemic savings growth rate in the United States. Like those who believe that fundamental income tax reform is needed to increase savings and improve economic growth, many believe that fundamental restructuring of Social Security can increase savings and improve growth.

B. THE LABOR SUPPLY

1. Taxes and Labor Supply

Social Security taxes reduce after-tax wages and can be expected to reduce labor supply just like price reductions reduce the supply of any commodity. In countering this “price effect,” however, there is also an “income effect” – individuals sometimes work more in response to lower wages to maintain a desired standard of living. Thus, it is unclear whether tax increases on wages increase or decrease the labor supply. The empirical evidence suggests that changes in after-tax wage rates have little or no impact on the supply of labor by primary workers (workers who bring in a significant portion of a family’s earnings).³⁸

However, individuals for whom working is not a necessity show a greater sensitivity to taxes. The amount of labor supplied by secondary workers is much more responsive to after-tax wage rates than it is for workers who are trying to maintain a basic standard of living. For example, a senior citizen with pension income might reduce consumption (or bequests) rather than work. Empirical evidence confirms that labor supply of married women is responsive to changes in wage and tax rates.³⁹

2. Tax or Defined Contribution Payment

As a tax that pays for social programs, the standard economic analysis about the impact of Social Security payroll taxes applies. However, as a defined-contribution pension plan, the payroll tax “contributions” are offset by the value of benefits provided, and the payroll tax should have no direct impact on labor supply. The extent to which the benefits offset contributions varies. For example, if an individual who planned to save 10 percent of salary is required to deposit 10 percent of salary into a defined-contribution retirement plan, this requirement is unlikely to affect that individual’s decision to work. Even for employees with no intention of saving, a mandatory 10 percent requirement is unlikely to have anything like the impact of a 10 percent tax, because required 10 percent saving has significant value.

Only where workers (most likely younger workers) have no interest in a retirement plan is a mandatory defined-contribution plan likely to affect labor supply in the same manner as a tax. Individuals who look only at take-home pay when deciding whether to work will not distinguish between a tax and a contribution to a retirement plan. In this case, any reductions in take-home pay – whether as taxes or pension contributions – would have the same impact on labor supply.

The Social Security system does not currently resemble a defined-contribution plan. The links between how much one works, contributions and the resulting benefits are rarely understood by employees. If additional work does not change benefits, the mandatory payment of 12.4 percent of wages is, for economic purposes, fully equivalent to a 12.4 percent tax. However, additional taxes arising from additional wages is, in many cases, offset by future benefits. Also, mandatory

³⁸ See the 1994-1995 Advisory Council on Social Security, *Final Report of Technical Panel on Trends and Issues in Retirement Saving* (Washington, D.C., 1995).

³⁹ See 1994-1995 Advisory Council *1995 Final Report*.

payments into Social Security may actually have resulted in a net subsidy for working, particularly for low-income workers.

Under the current system, most employees appear to view Social Security payments as a tax and respond to them as taxes. First, they are uncertain about the future availability of benefits. Second, younger workers in particular do not understand the link between contributions and benefits, but they can clearly see the burden in their paychecks.

3. Payroll Taxes and the Labor Supply

Increases in the labor supply increase overall economic growth. Any reform proposal that tightens the link between contributions and benefits or reduces labor-based taxes can increase the supply of labor to some degree. Historically, it is difficult to measure the *degree* of response to a given policy change; therefore, predicting the extent to which changes would increase labor supply is uncertain.

However, whatever the impact, the labor supplied by primary workers would be the least affected. As discussed below, the empirical evidence is much more pronounced for older workers who are trying to decide whether to retire or remain in the workforce.

4. Structural Effects of Social Security on Labor Supply

Several aspects of Social Security may affect labor markets in very specific ways. For example, many state and local government employees do not participate in Social Security, creating a strong incentive for these employees to get part-time jobs to qualify for Social Security in addition to their government pension benefits.

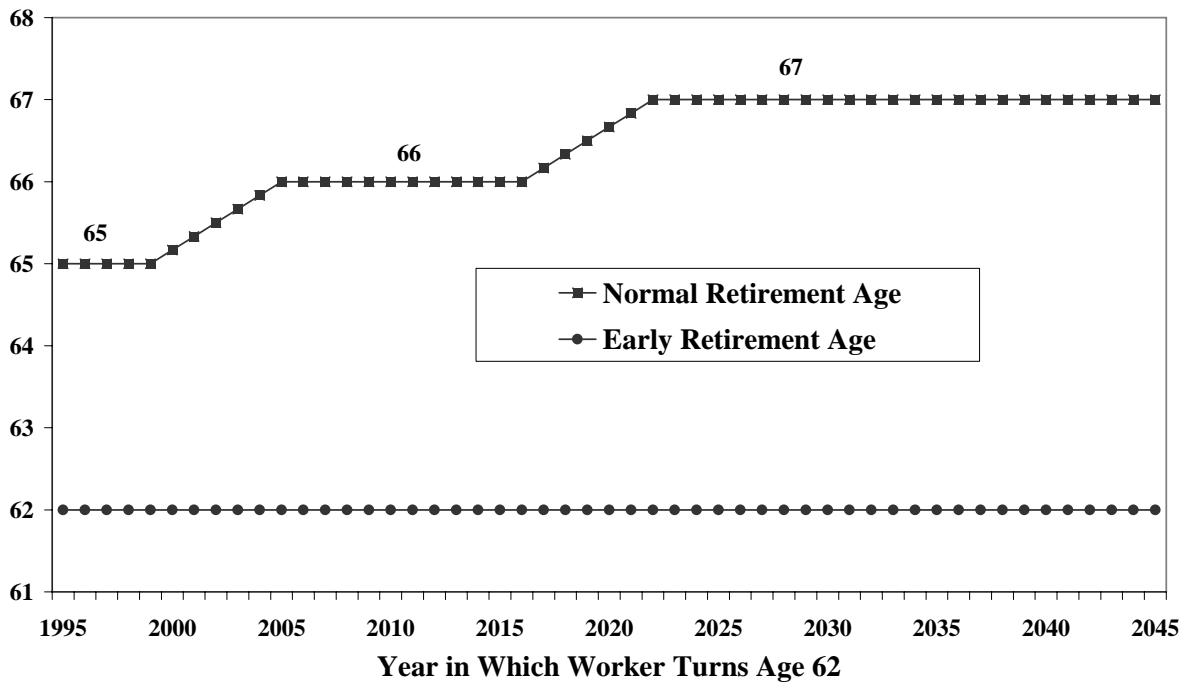
The most important feature of Social Security affecting the labor market is the complex array of choices to individuals age 62 and over that have a large impact on the decision to retire or semi-retire. If a 62-year-old individual is working, and elects to begin receiving Social Security benefits at the early, reduced annuity rate, those benefits may be further reduced or entirely eliminated depending on how much income is earned.

On the other hand, working past full retirement age (age 65, adjusted upward for those born after 1937) and electing to begin Social Security benefits past full retirement will increase future benefits in two ways. (**Exhibit 4.1** shows changes in normal retirement age scheduled under current law.⁴⁰) First, more earnings, often at a higher-than-average rate, are included in the benefit calculation. Second, delayed retirement credits are included in the benefit calculation.⁴¹

⁴⁰ An Excel spreadsheet giving more detail on [Exhibit 4.1](#) is available online.

⁴¹ The delayed retirement credit increases benefits by a fraction of a percent based on increment months. Incremental months are every month (1) in which the individual is at least full retirement age but not yet 70 (72 if the individual attained age 70 before 1984); and (2) for which the individual is eligible, but did not receive a benefit.

Exhibit 4.1
Scheduled Increase in Normal Retirement Age from 65 to 67



Source: Social Security Administration, "Find Your Retirement Age," on-line at www.ssa.gov/retirechartred.htm.

Whether continuing to work is beneficial depends upon an individual’s earnings history and life expectancy. In general, Social Security provides a substantial incentive for retirement because the present value of lost current benefits is not offset by the expected value of future benefits.⁴² However, even when a retiring senior understands that Social Security is not beneficial in terms of a present-value analysis, that individual may want the income now and be willing to take a loss to get benefits earlier.

Two pivotal retirement ages in Social Security – 62 and 65 (as adjusted) – are important symbols that establish norms of retirement behavior.⁴³ Older workers may feel that this is age at which they should retire. Many retirement plans are tied to Social Security providing further financial incentives to retire at 62 or 65.

Studies show that the prospect of receiving Social Security encourages retirement at 62, the age of first eligibility, but the size of the effect is uncertain. Many believe that increased Social Security benefits (in combination with the expansion of private pension benefits) are a major reason for the shift toward age 62 retirements. But these studies also suggest that not all of the

⁴² Courtney Coile and Jonathan Gruber, Social Security Incentives for Early Retirement, National Bureau of Economic Research Working Paper No. 7651, April 2000.

⁴³ These possible effects are discussed in Eugene C. Steuerle and Jon M. Bakija, *Retooling Social Security for the 21st Century: Right and Wrong Answers to Reform* (Washington, D.C.: The Urban Institute Press, 1994), 199.

historical increase in early retirements can be explained by Social Security.⁴⁴ Although previous research has found little evidence to suggest that even substantial changes in the structure of Social Security affect the average retirement age as long as benefits continued to be available at age sixty-two, this evidence is in dispute.⁴⁵ Less disputed is the likelihood that raising the early retirement age above age 62 would probably increase labor force participation rates of individuals in their sixties. However, there could be some offsetting impact of an increased disability rate for this age group.⁴⁶

C. SAVINGS

1. Introduction

Most economists agree that the key to long-term economic growth is savings. The vast majority of funds needed to purchase new equipment, new plants, new roads, and new technology comes from savings. Without increasing savings, any increase in one investment (for example, in new machinery) must come at the expense of other investment (in technology or training). With more capital, employers can provide workers with more tools or skills, enabling them to be more productive. Productivity growth leads to higher wages and a higher standard of living.

The current U.S. savings rate is low, not only by historical standards, but low in comparison with other major industrialized countries. Many analysts believe that Social Security is, in part, responsible for this low level of savings. This correlation focuses on older Americans and their reliance on Social Security for retirement savings. Likewise, most believe that workers under age 50 are not relying on Social Security for retirement and, therefore, they conclude that the low savings rate does not have the same negative impact on savings.

Before exploring these issues in more detail, there are two important concepts to note. First, although policy debates tend to focus on personal saving by individuals (primarily pensions and bank accounts), significant saving is done by businesses (retained earnings), state governments (budget surpluses), and foreign individuals and businesses investing in the United States.

Second, savings can be negative. When consumer or government spending exceeds income, this reduces the funds available for capital investment. Therefore, from the standpoint of capital formation, reducing indebtedness is just as important as increasing saving. Of course, a prime example of this “dissaving” (the opposite of saving) is the federal deficit.

⁴⁴ See 1994-1995 Advisory Council *1995 Final Report*.

⁴⁵ See 1994-1995 Advisory Council *1995 Final Report*.

⁴⁶ In addition to Social Security, a variety of other economic factors enter into the retirement decision, including the worker’s total savings, the availability of pension and health benefits, and the availability of Medicare benefits. See Sophie M. Korczyk, *Is Early Retirement Ending*, AARP Research Center, Public Policy Institute, November, 2004.

2. Impact of Social Security on Private Savings

Start-Up Period

Most past and current beneficiaries have positive “net Social Security wealth” – they received more than they paid in. Future retirees are not expected to fare as well, and over the next half century, increasing numbers of retirees will have negative net Social Security wealth. Economists theorize that current retirees saved less than they otherwise might have during their working years because Social Security would be there for their retirement. (See **Exhibit 4.2**).

Exhibit 4.2
**Average Annual Growth Rates in the Consumer Price Index
and Social Security Benefits, 1959-2003**

Time Period	Average Annual Inflation	Average Annual Growth Rate of Social Security Benefits	Average Growth of Social Security Over Inflation
1959-67	1.7%	1.7%	0.0%
1968-74	9.6%	5.7%	3.9%
1975-03	4.5%	4.6%	-0.1%

Sources: Council of Economic Advisors. *2004 Economic Report of the President*, on-line at www.gpoaccess.gov/usbudget/fy05/pdf/2004_erp.pdf; Social Security Administration. *A Brief History of Social Security*, SSA Publication 21-059 (August 2000), on-line at www.ssa.gov/history/reports/briefhistory.html.

Mature System

Assuming that Social Security had a negative impact on saving during its start-up phase, workers would be expected to increase savings when net their Social Security wealth is negative. If this holds true, private savings should be growing.

Forced Saving Versus No Saving

However, in the absence of Social Security, many individuals, particularly those with low incomes, would have been unable to save. Most low-income individuals get their employee contribution to Social Security reimbursed through the mechanism of the Earned Income Credit. Therefore, all that is “saved” on their behalf is the employer contribution. In these cases, and to the extent Social Security is pre-funded,⁴⁷ Social Security is forcing workers to save who might otherwise not do so.

⁴⁷ In 2003, total Trust Fund income was \$631.9 billion; total benefits paid were \$471.9 billion. The \$158.2 billion surplus is close to 24 percent of total income. Trust Fund income from taxes was \$546.9 billion. Thus, approximately 0.28 (\$158.2/\$546.9) of every tax revenue dollar is “saved.”

Uncertainty – Disability Insurance and Annuitization

In addition to saving to increase retirement consumption and bequests, individuals also save for uncertain future hardships. Social Security disability insurance means that individuals do not have to save as much for a “rainy day.” Also, because Social Security benefits are paid monthly until death, individuals have a lower need to “oversave” for the possibility of living past normal life expectancy. Both features contribute to a lower rate of personal saving than otherwise might be the case.

Annuitization of benefits is a unique, positive economic feature of Social Security as a government plan. The private market for annuities is small and unlikely to develop substantially in the future due to “adverse selection.”

Individuals almost always have better information about their own life expectancy than do insurance companies. Because insurance companies may not discriminate based on life expectancy, they cannot charge individuals with longer life expectancies more than those with short life expectancies. Average pricing of annuities tends to drive individuals with shorter life expectancies out of the market and encourage entry by individuals expecting to live longer.

Uncertainty – Under-Funding

The Social Security system faces a significant under-funding problem, and the perception that benefits will be unavailable or much diminished provides a major incentive for current workers to save more – whatever the reality.

Social Security Surplus Masks Federal Government Dissavings

Saving by the federal government (not including the Social Security Trust Fund) is negative. It would be unrealistic, and potentially misleading, to neglect the impact of changes in Social Security on the federal deficit. Social Security’s founders recognized the potential for any accumulation in the Trust Fund to affect government choices, which was a major reason for taking a pay-as-you-go approach to Social Security financing.

D. IMPLICATIONS FOR REFORM

A few conclusions emerge from the myriad of factors to consider when trying to assess the impact of Social Security on saving:

- Any past detrimental effects of Social Security on saving are probably now much diminished because the system partially pre-fund benefits (improving public savings), and individuals perceive the need to save more
- Pre-funding of Social Security benefits can significantly increase national savings as long as federal deficits do not increase in response.

CHAPTER 5

INTRODUCTION TO METHODS OF RESTORING FISCAL BALANCE TO THE SOCIAL SECURITY TRUST FUND

SUMMARY

- There are four general methods of improving the financial condition of the Social Security Trust Fund: (1) reducing benefits; (2) increasing revenues; (3) improving the rate of return on Trust Fund assets; and (4) other revenue sources such as appropriating Treasury general funds.
- A reduction in benefits can be accomplished through across-the-board cuts, means-testing, raising the retirement age, or changing the inflation-adjustments used to determine benefits.
- Increasing the payroll tax rate, raising the cap on taxable income, and extending the payroll tax to all government workers will produce greater revenue for the Trust Fund. Raising income taxes on Social Security benefits and using general tax revenues could also improve the financial condition of the Trust Fund.

A. INTRODUCTION

Social Security is often described as the most popular government program, and Americans collectively have come to rely on it. Projections from the Social Security Administration's Office of the Actuary (SSA) indicate that Social Security – historically the largest source of retirement benefits – will likely not have sufficient resources to fund scheduled retirement benefits for today's younger workers.

However, inadequate funds do not mean zero benefits. Although many believe that the Trust Fund shortfall means there will be nothing remaining when they retire, under the SSA's intermediate projections, full benefits can be paid through 2042. Thereafter, approximately 75 percent of benefits may be paid. A 25 percent shortfall in promised benefits is a serious issue, but it is far different from paying no benefits at all.

Using Social Security surpluses to mask federal deficits may be poor accounting practice, but it does not impair the Trust Fund's financial condition. However, this has fueled public fears that their Social Security has been spent on other government programs. Contrary to these fears, the federal government will begin to repay its borrowing from the Trust Fund as scheduled annual benefits start to exceed annual receipts.

Public dissatisfaction with Social Security is likely to grow, but not over insufficient funding. Rather, future retirees will see the relationship between their contributions and their benefits changing from the sometime large positive net benefit earlier generations received to a lower or – for some – a negative return on their investment.

Financial soundness and rates of return (money’s worth) are driving forces behind the Social Security reform debate, but they are not the only consideration. Options for reform must also be evaluated with respect to potential effects on economic growth, poverty among the elderly, and intergenerational redistribution of burdens and benefits of Social Security. (See Chapters 1 through 4.)

This chapter, and those following, will analyze a variety of generic and specific proposals in light of Social Security’s many facets. This framework is offered to facilitate comparisons among proposals and illustrate their different features, outcomes, impacts, and costs.⁴⁸ Complete evaluation of any specific proposal requires taking into account the simultaneous effects of all features of the proposal.

In Chapter 5, we examine the methods available to restore long-term financial stability to the Social Security Trust Fund, and outline two traditional methods of reforming Social Security. In Chapter 6, we will describe in more detail six specific “private account” proposals and one reform proposal without private accounts. Finally in Chapter 7, we will compare the seven major proposals considered in Chapter 6.

B. REDUCING BENEFITS

1. General Benefit Cuts

Benefit cuts can be immediate or targeted to future Social Security beneficiaries. The Trust Fund would be able to meet its future obligations if, starting immediately, scheduled benefits were cut by approximately 12 percent of current levels.⁴⁹ Most proposals, however, do not contain benefit cuts for current or near-term recipients.

Across-the-board benefit cuts would push some retirees below the poverty level, particularly groups that are already the most impoverished, including the very elderly and widows whose deceased spouses had low earnings. Other government welfare programs, such as food stamps and Supplement Security Income (SSI), might mitigate the effects of these reductions in Social

⁴⁸ We have not attempted to analyze other countries’ Social Security reform efforts or to project their results into the U.S. situation. Economic, cultural, and social policy differences make the international experience difficult to translate into domestic reform scenarios.

⁴⁹ Under the intermediate assumptions of the 2004 Trustees’ Report, average benefits and average income (expressed in present value over 75-years) equal 15.73 percent and 13.84 percent of payroll; the difference is the oft-cited 1.89 percent actuarial deficit. Reducing benefits to 13.84 percent of payroll, translates into a 12 percent benefit reduction that would restore balance to the Trust Fund.

Security benefits; but any increase in antipoverty programs would put new financial pressures on federal, state, and local governments sponsoring these programs.

Cutting benefits would reduce rates of return on Social Security for all participants. This would bring returns on Social Security more in line with other investments for groups that currently have above-average rates of return – one-earner married couples and low-income individuals. However, any reduction in benefits would only further exacerbate the below-average returns for future single and high-earner retirees. Benefit cuts would presumably increase incentives to save and reduce incentives to retire early. The resulting saving and labor-supply increases would help the economy, but the effects may not be large.

2. Raising the Retirement Age

Under current law, the normal retirement age (NRA) is scheduled to increase gradually from age 65 to age 67 for those reaching the early retirement age of 62 in 2022. Perhaps the most frequently discussed method of reducing benefits is (1) increasing in the NRA further; (2) increasing the early retirement age, which remains at 62 for all beneficiaries; or (3) increasing both.

In many respects, increasing the statutory retirement age would have similar effects to an across-the-board benefit cut: Financial soundness would improve at the cost of higher poverty levels and lower rates of return. This change would also likely increase labor supply, as older workers can be expected to delay retirement in response.

One important difference between benefit cuts and increasing retirement ages is distributional: Those with shorter life expectancies would bear a proportionately larger share of the burden. For example, individuals with lower levels of education have shorter life expectancies than highly educated individuals.⁵⁰ Any proposal to delay retirement age would place a disproportionate burden on groups with shorter life expectancies.

As shown in Exhibit 4.1, the normal retirement age is currently scheduled to increase from 65 to 67. None of the current major proposals for reform include a further increase in the normal retirement age.

3. Changing Cost of Living Adjustments

Currently, Social Security benefits are initially computed (generally at age 62) using the Consumer Price Index (CPI) to keep pace with inflation.⁵¹ Critics assert that the CPI overstates the impact of inflation on the cost of living. Considerable dispute also exists about the order of magnitude of any bias in the CPI; while some analysts believe it is minor, others believe it may

⁵⁰ Samuel H. Preston, Ethnic and Social Differences in Mortality and Life Expectancy (presented to the 1994-1995 Advisory Council on Social Security, February 11, 1995).

⁵¹ The CPI is not used to index earnings to arrive at the average indexed monthly earnings (AIME).

be as large as 1.5 percentage points annually.⁵² Modifying the CPI downward would be the equivalent of a phased-in, across-the-board benefit reduction with an increasingly negative impact on Social Security returns for future beneficiaries. Changing how the CPI is calculated will also affect other government calculations.

4. Reducing Benefits for High-Wage Workers

Concentrating benefit cutbacks on high-income beneficiaries would improve Social Security finances without reducing benefits for those most in need. The simplest method of cutting benefits for more affluent Americans is to reduce monthly benefits above a certain amount by, for example, lowering the 15 percent replacement rate above the second bend point (\$3,869 in 2004) to 10 percent. (See Chapter 3.)

This method is not as well-targeted as it may appear: Many affluent Americans receiving lower benefits would continue to receive the same benefits; while many receiving above-average benefits but who have no other retirement income would have their benefits cut. Thus, this method does not achieve its main objective – preventing poverty. Also, by progressively reducing the rate of return on Social Security as wages increase, the potential for adverse impacts on labor supply is proportionately greater than for an across-the-board benefit cut.

5. Wage-Indexing Initial Benefits

Social Security retirement benefits are calculated in a three-step process described in Chapter 3, and adjusted for inflation using two different indexes. A worker's average monthly lifetime earnings are adjusted upward according to the economy-wide increases in *wages* from the time they were earned to the "index year" (generally when the worker turned 60). The initial monthly benefit is then indexed to *price* inflation over the retiree's life.

In general, in most modern economies wages grow faster than prices, as a result of productivity growth. Over time in a competitive market, employers will pay workers according to their value. Without increased labor productivity, wages merely keep pace with inflation. With increasing productivity, labor supplied is more valuable, and in the long run labor markets adjust by increasing real wages. And so, because labor productivity is nearly always increasing, wage inflation is almost always higher than price inflation.

Many reform proposals would substitute price indexing for wage indexing to adjust an individual's average lifetime wage when calculating initial benefits. This option has attracted a lot of attention because by, reducing scheduled benefits gradually, it entirely eliminates the Trust Fund deficit projected under intermediate assumptions.

Whether using wage or price indexing is a better method of adjusting Social Security benefits is a matter of judgment. Price indexing yields a benefit commensurate with real wages *averaged over* a working lifetime. Wage indexing yields a benefit commensurate with wage levels

⁵² Alan Greenspan, Remarks on Social Security at the Union League of Philadelphia's Abraham Lincoln Award Ceremony, December 6, 1996.

prevailing *at the end* of a working life.

Financial planners typically discuss retirement income in terms of "replacement rates" – the percentage of immediately pre-retirement income necessary to maintain the retiree's standard of living. If benefits are not indexed to wage growth, retirees – especially in periods of rapid productivity growth – would not fully share the economy's good fortune. Price indexing initial benefits would subject seniors to a sudden drop in replacement income relative to their pre-retirement income levels and to the prevailing income levels in the economy as a whole.

6. Means Testing of Benefits

Means testing of benefits is better suited to protecting poorer Americans against Social Security benefit cuts than the previously mentioned methods. Means testing takes total family income into account, not just benefits. Although better targeted than simple reductions in high levels of benefits, income is not a complete a measure of well-being – particularly among the elderly. For example, an elderly individual may have substantial wealth – including a personal residence – but low current income.

Means testing based on wealth is unlikely because measuring wealth could not “piggyback” on the income tax and raises significant compliance and valuation issues. In contrast, all the data needed to administer an earnings limit test is already in the Social Security system. Nevertheless, income-based means testing would add significant new complexity to the now relatively straightforward administration of Social Security benefits. Means testing also raises a number of fairness issues such as treating savers and spenders differently and preferential treatment of investment earnings over wages.

Significant economic problems also arise from means testing. As with reducing higher benefit levels, the progressively greater burdens placed on net returns to Social Security as individuals earn more income during their lifetime would reduce incentives for additional work. The net impact on saving is ambiguous because many high-income individuals may want to increase their savings in light of the reduction of their benefits expected from means testing.

7. Taxing Social Security Benefits⁵³

Taxing Social Security benefits is the economic equivalent of means testing by income, but raises revenue for Social Security without burdening the elderly poor or increasing administrative costs. Prior to 1983, Social Security benefits were not subject to income tax.⁵⁴

⁵³ Taxing Social Security benefits is a tax increase, but is equivalent to a direct cut in benefits.

⁵⁴ Beginning in 1984 if a taxpayer's modified adjusted gross income exceeded a threshold amount, 50 percent of Social Security benefits were subject to tax. The resulting additional tax revenues are transferred to the Trust Fund. In 1993, the income taxation of Social Security benefits was expanded, subjecting up to 85 percent of benefits to tax after a secondary income threshold was surpassed. These second-tier tax revenues are transferred to the Medicare Trust Fund.

Currently, Social Security benefits of upper- and upper-middle-income households are taxed; expanding taxation further could further lower-middle income elderly (the lowest income households would not be subject to income tax).⁵⁵

One approach to improve fairness would be to tax Social Security benefits in a manner similar to private annuities. Taxpayers would then pay taxes only on Social Security benefits received in excess of “their return of capital” – their payroll tax contributions. A variation would exclude payroll taxes from taxable earned income, thereby eliminating the double taxation affect: Once when earned and contributed; a second time when benefits are received.

C. INCREASING TAXES

1. Increasing the Payroll Tax Rate

In general, a payroll tax increase improves the financial soundness of the Social Security Trust Fund, but also increases the burden on current workers and the payroll tax impact on labor supply. Because the payroll tax is not progressive and is not subject to exemptions or deductions, low- and moderate-income *workers* may fall below the poverty line as a result of an increase. An increase would also reduce the rate of return for all workers currently paying into the system.

Employers would also respond to any payroll tax increase. In response to any hike, there would be increased pressure to reclassify employees as independent contractors, to outsource jobs, and to outright reduce the size of their workforce.

The payroll tax rate has steadily increased over time, but has remained stable since the early 1990s. (See **Exhibit 5.1**).⁵⁶

2. Increasing the Earnings Ceiling

Another way to increase Social Security revenue would be to increase or entirely eliminate the ceiling on earnings subject to payroll taxes (\$90,000 in 2005).⁵⁷ Unlike means testing or other methods of reducing benefits for the wealthy, increasing the ceiling focuses the burden on current, high-income workers and largely exempts current high-income beneficiaries.

⁵⁵ According to IRS data, in 2002 approximately 10.7 million individual tax returns – out of a total of 130.1 million – included taxable Social Security benefits. Out of \$205.7 billion in benefits received, \$93.5 billion were taxed. See Michael Parisi and Scott Hollenbeck, Individual Income Tax Returns, 2002, *Statistics of Income Bulletin*, Fall 2004, 8-45.

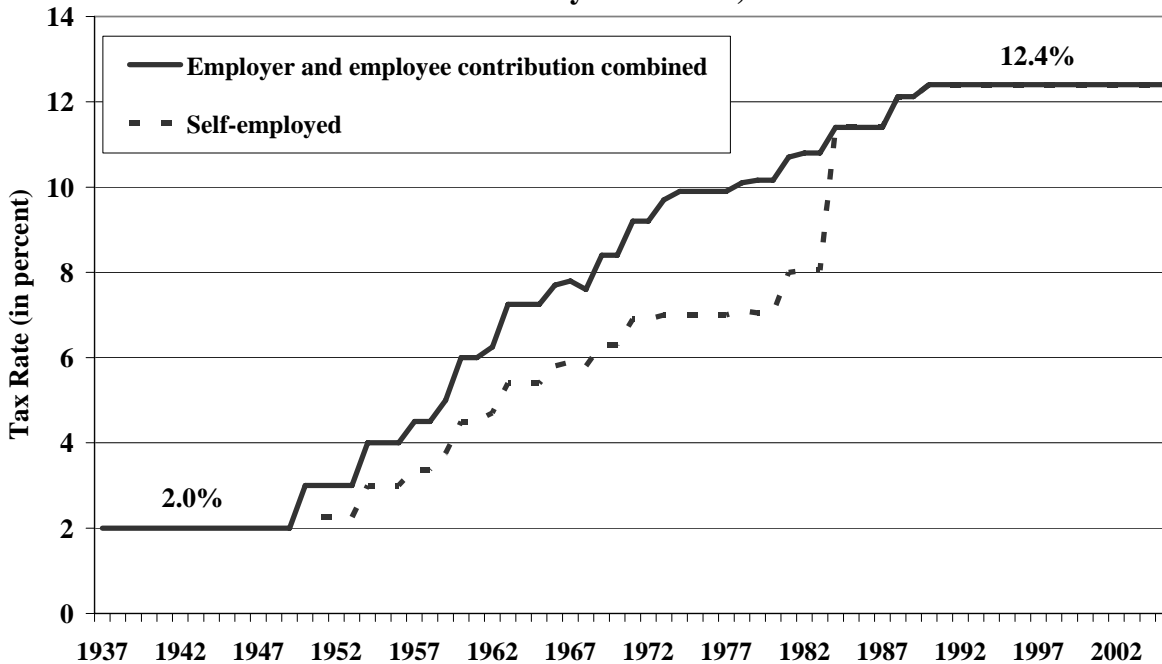
⁵⁶ Martin A. Sullivan, Social Security Taxes: No Room to Grow? 71 *Tax Notes* (April 1, 1996), 133-136. An Excel spreadsheet giving more detail on [Exhibit 5.1](#) is available online.

⁵⁷ In 1993, the ceiling on the Medicare portion of the payroll tax was eliminated; now all wage and self-employment income is subject to Medicare taxes.

Some consider an increase in the payroll tax ceiling particularly unfair given that future high-income beneficiaries – particularly single individuals and two-earner couples – are already slated to receive historically low rates of return. According to the 2001 report of the Social Security Advisory Board, eliminating the ceiling (beginning in 2002) would eliminate the Trust Fund deficit.⁵⁸

A related proposal would not only increase the ceiling, but subject them to a higher tax rate; thereby making the Social Security tax progressive, rather than regressive. This payroll tax increase would only affect *high-wage* earners. High-income individuals with low amount of wage income would be unaffected, thus putting a disproportionate burden on the wage-earning wealthy relative to the investment-earning wealthy. (This discussion assumes that any increase in earnings subject to payroll taxes would not result in an increase in benefits following a mechanical application of the benefits formula.)

Exhibit 5.1
Social Security Tax Rates, 1937-2005



Source: 2004 Social Security Trustees' Report, Table V.A1.

D. OTHER REVENUE SOURCES

1. Using General Tax Revenues

⁵⁸ 2001 Advisory Council on Social Security, *Social Security: Why Action Should Be Taken Soon* (rev. ed. July 2001), 23.

Another way to improve the Trust Fund's financial condition would be to earmark tax revenues other than payroll tax revenue for Social Security. Currently, income taxes collected on Social Security benefits are already transferred directly to the Trust Fund.⁵⁹ From the viewpoint of Social Security, using general revenues would increase the rate of return and could increase confidence in the program.

However, many believe using more general revenue to bolster Social Security would erode support and push Social Security away from being a contributory retirement plan and toward being a welfare program. Given that the income tax is much more progressive than payroll taxes, some may support switching to income-tax funding of Social Security as a way to increase progressivity of the overall fiscal system.

2. Extending Social Security Coverage to All State and Local Government Workers

Currently, some state and local government employees are not required to participate in Social Security. Although no payroll taxes are collected on their governmental salaries, these workers may still be eligible for substantial Social Security benefits at no additional cost to themselves, because their spouses are participants. Alternatively they have second or part-time jobs, thereby becoming eligible for the relatively generous benefits paid to low-wage earners, even if they have substantial wage income from their government jobs.

Requiring these workers to participate in the system would improve Social Security finances, but the amount of additional revenue that can be raised is limited.

E. TWO TRADITIONAL REFORM PROPOSALS

This section describes two proposals designed to restore fiscal balance to the Social Security Trust primarily through a combination of benefit cuts and tax increases. They are "traditional" in the sense that they do not involve personal accounts. The first proposal – the "Maintenance of Benefits" plan – is one of three options proposed by 1994-1996 Advisory Council on Social Security. The second is a more recent plan proposed by Peter Diamond of the Massachusetts Institute of Technology and by Peter Orszag of the Brookings Institution.

The **Maintenance of Benefits** plan would eliminate the Social Security deficit without altering the basic nature of the program through a combination of benefit reductions, tax increases, and investing Trust Fund assets in equities. Specifically, the plan includes the following:

- Extending coverage to state and local government employees hired after 1997 who are not already covered by Social Security.
- Making Social Security benefits taxable to the extent that they exceed worker contributions.

⁵⁹ The Part B portion of Medicare receives most of its funding from general revenues.

- Expanding the averaging period for calculating benefits from 35 to 38 years.
- Incorporating technical corrections to the CPI (made by the Bureau of Labor Statistics in 1995 and 1996), thereby reducing the upward bias in inflation indexing.
- Investing 40 percent of Trust Fund assets in corporate equities on a graduated basis.⁶⁰
- Redirecting the revenues from taxing Social Security benefits that are currently paid into the Medicare Trust Fund into the Social Security Trust Fund in phases.
- Increasing both the employee and employer payroll tax rate by 0.8 percentage points (to a total of 14 percent) starting in 2045.

Like Maintenance of Benefits, the **Diamond-Orszag** plan does not include personal accounts, and combines benefit reductions and tax increases to finance currently projected deficits. Under Diamond-Orszag, about two-thirds of the unfunded liability is financed through payroll tax increases. The remaining one-third is financed through benefit reductions, primarily imposed on higher-income workers.

The SSA cost estimates for both of these plans are summarized in **Exhibit 5.2**.

⁶⁰ This type of provision, neither a tax increase nor a benefit reduction, is discussed in the following chapter.

Exhibit 5.2
Estimated Changes in Long-Range Social Security Trust Fund
Actuarial Balance Under Two Proposals to Restore Solvency

Provision	94-96 Model Advisory Council Plan ¹	2003 Diamond- Orszag Plan ²
Reduce Cost of Living Adjustments		
(1) Assume BLS adjustments reduce COLAs by 0.21%	0.31	
Increase coverage		
(2) Cover all newly-hired state and local government employees	0.22	+0.19
Reduce benefits		
(3a) Reduce benefits for workers with long working lives	0.28	
(3b) Reduce monthly benefits commensurate to increase in life expectancy		+0.55
(3c) Reduce benefits for high wage workers		+0.18
(3d) Residual benefit adjustments: reduce benefits across-the-board ³		[+0.97]
Increase Income Tax of Social Security Benefits		
(4a) Tax Social Security benefits as pension benefits, but with \$25,000/32,000 thresholds	0.15	
(4b) Phase out the \$25,000/32,000 tax thresholds of benefits	0.16	
Targeted benefit increases		
(5a) Increase benefits for low-earners		-0.14
(5b) 75-Percent of Couple Benefit for Aged Widow/Widowers		-0.08
(5c) Increase disability benefits		-0.21
Payroll tax increases		
(6a) Increase payroll tax rate in 2045 by 0.8% for employees and employers, each.	0.22	
(6b) Increase taxable maximum earnings base		+0.25
(6c) Apply a 3% tax rate to all earnings above the taxable maximum amount		+0.55
(6d) Residual tax adjustments: increase payroll tax rates (including new 3% bracket above) ³		[+0.97]
Equity investment		
(7) Invest a portion of Trust Funds assets in stocks for 2015 and thereafter.	0.82	
Earmark income tax revenue		
(8) Gradually redirect revenue from taxation of Social Security benefits that currently is transferred to the Medicare Trust Fund to the Social Security Trust Fund.	0.26	
Actuarial Balance without Proposed Changes	-2.17	-1.92
Total changes	2.42	2.00
Estimated long-range actuarial balance under proposal	0.24	0.09
1. Estimates based on the intermediate assumptions of the 1995 Trustees' Report. 2. Estimates based on the intermediate assumptions of the 2003 Trustees' Report. 3. The combined effect of provisions (3d) and (6d) is an increase of the actuarial balance of 0.97% of payroll.		
Sources: 1994-95 Advisory Panel <i>1995 Final Report</i> ; and Social Security Administration, Office of the Chief Actuary, <i>Estimate of Financial Effects for a Proposal to Restore Solvency to the Social Security Program</i> (October 8, 2003).		

Chapter 6

INTRODUCTION TO PERSONAL ACCOUNTS

SUMMARY

- Over long periods of time, the return on investment in the stock market generally outperforms the return on U.S. government securities.
- At historical rates, investment in the stock market could improve the financial condition of the Social Security Trust Fund. However, many are concerned that large-scale government investment in private equities could result in undue political influence in markets and on business decisions.
- Under a system of personal accounts, a portion of payroll taxes paid by each worker would be redirected from the Trust Fund to that worker's own personal account.
- Some restrictions would be imposed on investment and payout options, but the personal account holder would generally earn a higher return on contributions than could be earned under current law.
- Personal accounts expose account holders to uncertainty about their future benefit levels resulting from uncertainty about future financial market performance. Some of this risk can be eliminated through diversification; the rest may be transferred to the federal government.
- During the long transition to a personal account system, fewer funds would be available to pay benefits to current retirees and near-retirees, because contributions to the personal accounts of younger workers would result in lower contribution levels to the Trust Fund.

A. INTRODUCTION

As discussed earlier in the report, Social Security currently fulfills its “social safety net” function by providing a guaranteed minimum level of retirement income. Most discussions of personal accounts contemplate the potentially greater returns on investment that may arise from shifting to investments in private securities markets. The accompanying risk is less talked about.

Any shift away from a guaranteed income system to a system that includes personal investment accounts will result in individuals bearing a greater risk of having insufficient levels of retirement income.

B. INVESTMENT IN THE STOCK MARKET WITHOUT PRIVATE ACCOUNTS

The Social Security Trust Fund could benefit if restrictions on investment were removed and it could invest in private capital markets. If this were to occur, and if historical rates of return were realized, the financial condition of the system could be improved without reducing benefits or increasing taxes.

There are, however, two major difficulties with investment in private capital markets. First, increased volatility of rates of return would accompany any switch from investing in government bonds to investing in private equities. The second issue is how a massive infusion of Trust Fund dollars into the private equity market would affect the markets. This change is not anticipated to have any significant effect on the overall economy, but the difference in average rates of return on stocks and bonds could be reduced by the large increase in demand for stocks and the corresponding reduction in the demand for bonds.

1. Rates of Return

Under current law, Trust Fund reserves must be invested in interest-bearing obligations of the federal government. At the end of December 2004, the Trust Fund had an accumulated balance of \$1.69 trillion, comprised largely of “special issue” securities available only to the Trust Fund. (The Trust Fund holds a very small amount of marketable Treasury securities.) The weighted average maturity of these bonds was 7.2 years,⁶¹ and the weighted average interest rate was 5.7 percent.⁶² The Treasury may redeem special-issue bonds at any time before maturity, and the Treasury Secretary is the Trust Fund’s managing director.

Analysts usually break down interest rates into three parts: (1) the “real” return on investment; (2) the risk factor; and (3) inflation. The real interest rate is the difference between the market (or “nominal”) rate of interest and the current inflation rate.

Government securities are generally assumed to carry zero risk of default. Investing Social Security funds in private securities would require higher returns to compensate for the higher risk.

Although inflation plays an important role in Trust Fund projections, the real interest rate features much more significantly in economic projections. The Social Security Administration’s Office of the Actuary (SSA) estimates that a 1 percentage-point increase in the real interest rate would reduce the actuarial deficit from 1.89 percent to 1.38 percent of payroll and push back the estimated exhaustion date by approximately three years.⁶³

⁶¹ Social Security Administration data, available online at <http://www.ssa.gov/OACT/ProgData/investheld.html>.

⁶² Social Security Administration data, available online at <http://www.ssa.gov/OACT/ProgData/intRates.html>.

⁶³ **Exhibit 1.10** and Table VI. D6 of the 2004 Trustees’ Report.

The Real Return on Government Securities

In 1994, the SSA estimated that the future real return on the Trust Fund's portfolio of government securities would be 2.3 percent. By 2001, the SSA revised its assumptions upward and has since assumed a real interest rate on government bonds of 3.0 percent in its intermediate projections.

The Real Return on Equity

Historically, the return on stocks is, on average, much higher than the return on government securities. Accordingly, the SSA estimates that investing in private securities would yield a real rate of return of around 6.5 percent, approximately 3.5 percentage points higher than investing in government securities.

Although attractive, these substantially higher returns raise concerns about increased risk and volatility of returns. In general, returns on stock exhibit much more volatility.

Separate from the volatility issue, is the question of whether stocks can continue to outperform bonds in the future. Commentators have reasoned that, if a Social Security reform plan incorporates a private equity investment strategy, the rate differential between government bonds and private equities would narrow.⁶⁴ This is a straightforward application of basic economic theory. With a total fixed supply of saving, an increase in demand for corporate equities increases the price of these equities; reduces equity returns; and causes a one-for-one reduction in the demand for bonds, thereby creating an increase in bond returns.

If the Social Security Trust Fund invested in the private equity market to get a higher rate of return, it would theoretically increase the rate of return on its bond investments. The theory is straightforward, but no empirical information exists on the magnitude of rate-of-return compression between stocks and bonds. The possibility that corporations would issue more equity and less debt as a result of the shift in the Trust Fund's portfolio further complicates the analysis.

2. Risk

Government bonds pay fixed interest, return investors' principal, and are considered to be free of default risk. However, because government bonds are subject to significant interest rate and inflation risks, particularly longer-term bonds, it is not entirely accurate to say they are risk free. Recently, Treasury has begun to issue bonds with interest payments that are indexed to inflation. Because they are not subject to inflation risk, these bonds pay less interest than other government bonds.

⁶⁴ See, for example, Alan Greenspan, Remarks on Social Security at the Union League of Philadelphia's Abraham Lincoln Award Ceremony, December 6, 1996; and Randall P. Mariger, Social Security Reform: What It Can and Cannot Accomplish, presented to the Board of Governors of the Federal Reserve System, June 1997.

If the Trust Fund invested substantial portions of its portfolio in the stock market, the volatility of returns would increase. Proponents of equity investment believe that the expected substantial increase in returns outweighs the increased risk. Some studies have shown that, if the historical relationship between return on private equities and return on government bonds is maintained, the probability that the return on Trust Fund assets would decline under any reallocation of investment from government bonds to equities is extremely small.⁶⁵

Reallocation of Risk Between Government and Beneficiaries

It is important to distinguish between risks faced by individuals in the system and risks to the overall financial soundness of the system. For example, if the Social Security system invested in the stock market without any changes in benefits, the Trust Fund would experience increased volatility in its returns, but individual beneficiaries would be insulated from that risk because government obligations have not changed.

Riskiness of the Underlying Portfolio

The degree of risk in shifting Social Security investment to the stock market depends on (1) the timing of the portfolio shift; and (2) the underlying investment guidelines of the new portfolio. This generates many questions on how and if such a plan can be implemented.

- What percentage of Trust Fund assets should be invested in equities? Academic proposals often implicitly assume 100 percent investment in equities. More realistic proposals often advocate gradual investment in equities until a target level of between 40 and 60 percent is achieved.
- What are the guidelines for Trust Fund equity investments? Should they specify Fortune 500 companies or stock traded on U.S. stock exchanges? Should guidelines allow investments in (a) non-publicly traded start-up companies; (b) foreign companies; (c) foreign stock markets; (d) corporate, municipal, and foreign-government bonds; (e) non-dollar-denominated securities? Also, should arbitrage of equity investment against government securities be permitted?

How these and other questions are answered determines the risk and return of the underlying portfolio.

Change in Risk Due to Shift from a Defined-Benefit to Defined-Contribution Plan

Privatizing Social Security would, in effect, be transforming the system from a defined-benefit to a defined-contribution plan. Even with the Trust Fund invested entirely in government bonds, benefits would be more uncertain under a defined-contribution plan, because beneficiaries must assume all investment risks.

⁶⁵ See, for example, Martin Feldstein, "Would Privatizing Social Security Raise Economic Welfare?" (Working Paper 5281) Cambridge, Mass.: National Bureau of Economic Research, 1995.

The risk of a defined-benefit plan depends on its ability to guarantee benefits. One way of guaranteeing benefits is to fully fund the plan. To the extent there are concerns that the federal government will not be able to fund benefit levels in the long run, any plan that increases the pre-funding of Social Security benefits reduces this risk.

Change in Risk Due to Change in Character of Benefits

From each individual's perspective, the amount of acceptable risk in any reformed Social Security system will depend on the type of benefits that result. Changes in the character of benefits could change the nature of risks faced by individual beneficiaries. For example, Social Security indexes retirement benefits to changes in inflation. Eliminating inflation indexing reallocates inflation risk to the beneficiaries and away from the government. Also, if individuals could take out benefits in the form of a lump-sum payment instead of an annuity, this increases beneficiary options, but increases the risk of outliving or outspending the stream of payments that could be funded from a lump-sum distribution.

Differences in Individuals' Risk Tolerance

Social Security investment in private equities could take the form of: (1) investment in private securities by the Trust Fund as a whole; (2) individual investment accounts with a limited set of investment options in publicly managed funds; or (3) individual investment accounts with little or no restriction on investment and payout options.

Although reform plans that include investing in private securities may result in generally superior benefits to participants, separate accounts may not be appropriate for all individuals. Taking increased risks to achieve potentially higher returns may be attractive to a high- or even middle-income households, but it may not be tolerable to a low-income households for whom Social Security may be the only form of retirement saving, life insurance, and disability insurance. In the plans that offer investment options, some individuals may be unduly or even irresponsibly aggressive in their investment choices.⁶⁶

Political Risk Under the Current System

Without full funding, participants in defined-benefit plans must depend on their contractual rights, the financial soundness of the plan sponsor, and the sponsor's commitment to meet its obligations. Given the actuarial under-funding of Social Security, future recipients in the system, particularly those under age thirty-five, face increased risk of their benefits being reduced. Under-funding can be alleviated by payroll tax increases, government borrowing, inflows of general tax revenues into the Trust Fund, or increases in the rate of return on Social Security assets. (See Chapter 5.) In the end, however, beneficiaries are at the mercy of the political process.

⁶⁶ For a discussion of how individuals might invest mandatory accounts under their own control, see Joel Dickson, Analysis of Financial Conditions Surrounding Individual Accounts, presented to the 1994-1995 Advisory Council on Social Security, Washington, D.C., April 11, 1995.

Investment in private securities can reduce political risk in two ways. First, to the extent that the return on assets can be increased, pre-funding of benefits increases and, therefore, the likelihood of political interference decreases. Secondly, to the extent that investment in private securities coincides with ownership of individual accounts, the government's role in Social Security will be reduced.

Political Dynamics of a Large Trust Fund

One of the major arguments against pre-funding of Social Security benefits put forward by advocates of pay-as-you-go financing is that the existence of a large Social Security surplus would provide too much political temptation to increase Social Security benefits or other social spending. Currently, the Trust Fund has a large surplus, and while legally separate funds, this surplus is routinely used to offset the federal deficit. Current SSA estimates indicate that the Trust Fund would need an *additional* \$3.5 trillion to pay anticipated future benefits over the next 75 years. This would create an even greater surplus, at least in the near-term, and lead to greater temptation.

Political Dynamics of a Volatile Trust Fund

Almost any plan that is balanced over the seventy-five-year horizon, as estimated in the year of enactment, will be out of balance in years after enactment even if projections are 100 percent accurate. How politicians and the general public will react to a moving target is unclear. A Trust Fund subject to the volatility of the U.S. stock market presents an even more difficult situation. If the stock market languishes for a decade immediately after enactment of a new plan to invest Trust Fund assets in corporate equity, political pressure to increase Trust Fund balances or revise the investment strategy might be irresistible. Conversely, if the stock market does better than expected, there may be increased pressure for benefit increases, payroll tax cuts, or accelerating investment of Trust Fund assets into the stock market.

3. Other Issues

Positive Impacts of Higher Returns Depend on Size of Reserve

If Social Security remains a pay-as-you-go system, investment strategies would not play a major role in determining the system's overall structure. However, the importance of investment strategy would increase if Trust Fund reserves were larger than current projections: The larger the Trust Fund, the greater the financial leverage from higher returns. Several analysts have advocated reform plans that include (1) temporary tax increases or benefit reductions to build up reserves; coupled with (2) equity investments to restore financial soundness. Feldstein and Samwick applied this strategy in a plan designed around individual accounts.⁶⁷ Bosworth applied the strategy within the current Social Security structure.⁶⁸ In the long run, tax increases,

⁶⁷ Martin S. Feldstein and S. Samwick, *The Economics of Prefunding Social Security and Medicare Benefits*. (Working Paper 6055), Cambridge, Mass.: National Bureau of Economic Research, 1997.

⁶⁸ Barry Bosworth, *Trust Fund Accumulation: How Much? How Managed?* in *Social Security: What Role for the Future*, edited by Peter A. Diamond, David C. Lindeman, and Howard Young, Washington, D.C.: National Academy of Social Insurance, 1996.

benefit cuts, or both, can be held to a minimum if support can be found to make the short-term sacrifice that could build reserves quickly.

Borrowing to Invest in Equities

If Social Security can earn more by investing in equities, some might argue that Social Security could increase its investments by borrowing to purchase stock – particularly if it can borrow at the low interest rates typical for federal bonds. Arbitraging equity investments against government securities sounds like it would be a money machine for the Social Security system. However, this plan does not take into account the implicit cost of the government-backed debt.

The federal government should charge a risk premium to any borrower using its funds. Equities are hardly-risk free. Even though equities should outperform government securities in the long-run, they may not do so in the short term, thus leaving the federal government responsible for any shortfall. The federal government should charge a price for assuming this risk.

Even if the equity returns are always sufficient to pay back debt, the Social Security system will face enormous risks. Equity investment is inherently risky. Leveraged investment in the equity market is far riskier – perhaps too risky for Social Security.

A second argument against leveraging Social Security investments would be the impact of the federal government as the largest investor in the stock market. Borrowing to invest would lift any financial limits on government ownership of private capital and result in an absolute ability to crowd out private investors.

Impact on the Rest of the Economy

Many economists conclude that Social Security investing in private securities would, most likely, have no appreciable impact on the overall economy because it would reallocate a fixed amount of the economy's overall total return on capital and the accompanying risk from current stock market investors to Trust Fund beneficiaries. In the short run, the markets would factor in these changes and stock returns would rise while bond returns would fall; but as the market adjusts over the long term, stock returns would fall and bond returns would rise.

Stock market investment would be good for Social Security, but not necessarily for the economy. Any benefits to the overall economy of Social Security reform would stem from possible increases in net national saving. Economic performance might also improve by increasing the labor supply either by reducing taxes directly or reducing the net burden of payroll taxes by more closely linking the amount of benefits to the amount of payroll tax paid.

C. ADMINISTRATIVE COSTS

The cost of administration is a critical factor in assessing any system of personal accounts. At one extreme, a bare-bones centralized system of accounts with no investment options and minimal recordkeeping costs might entail costs as low as 0.1 percent of assets. However, if investments are actively managed, substantial customer services provided, and individual account balances small, administrative costs could easily exceed 1.0 percent.

Administrative costs have a large impact on the benefits ultimately available to retirees. For an individual with average earnings of \$30,000, contributing 2 percent of earnings to an individual account, administrative costs of 0.1 percent of assets could allow an accumulated balance of \$125,430 by retirement. However, if administrative costs were 1 percent, the accumulated balance would be approximately \$98,000 – a 22 percent reduction.⁶⁹

Various factors affect the cost of administration. First is administrative structure. Because of economies of scale, centrally-managed recordkeeping (for example, by the Social Security Administration or a new, related government entity) would incur lower costs than recordkeeping and management services distributed among private companies. Some argue that competition among private companies might eventually reduce the costs of decentralized management, but others disagree.⁷⁰

Second is the degree of flexibility in selecting and changing investment options. Index funds cost less than actively managed portfolios, and fees are lower for funds where the frequency of changing investment options is held to a minimum.

Third, the level of customer service affects costs. The list of potential services is long and varied, including: (1) frequency of account statements; (2) provision of educational services and answers to account-holder questions; (3) frequency of allowed deposits; and (4) the option to borrow on account balances.

Fourth, costs increase with the variety and complexity of payout options. A one-time lump sum payout is the simplest and least costly. Annuities would incur more recordkeeping expense and, with variable annuities, the increased expense of portfolio management expenses. Allowing choice among these options adds further expense.

In the mid-1990s, an analysis of the Advisory Council on Social Security's three recommended options for reform estimated that the administrative costs will be low if administration is centralized and portfolio management is passive. (See summary of results in **Exhibit 6.1.**)

⁶⁹ These estimates are from the General Accountability Office and are in 1998 dollars. See, General Accountability Office, *Social Security Reform: Administrative Costs of Private Accounts Depend on System Design* (GAO/HEHS-99-131, June 1997), online at www.gao.gov/archive/1999/he99131.pdf.

⁷⁰ Mamta Murthi, J. Michael Orszag, and Peter R. Orszag, *The Charge Ratio of Individual Accounts: Lessons from the U.K. Experience*, Birbeck College Working Paper 99-2, University of London, March 1999.

Exhibit 6.1
Estimated Administrative Costs for the Social Security
Advisory Council's Three Plans

Proposed Reform Plan	Administrative Costs (as % of Assets)
<i>"Maintenance of benefit" plan.</i> Basically the current system with some stock market investment	0.005
<i>"Individual accounts" plan.</i> New individual accounts (incurring additional recordkeeping cost) but funds invested collectively	0.105
<i>"Personal security account" plan.</i> New individual accounts with funds invested individually	1.000
Source: Joel Dickson, Analysis of Financial Conditions Surrounding Individual Accounts, presented to the 1994-1995 Advisory Council on Social Security, Washington, D.C., April 11, 1996.	

Subsequent proposals for private accounts (discussed in the Chapter 7) have endeavored to avoid higher costs through central management. And, although there is usually at least a modest variety of investment options in these proposals, choices are usually limited to combinations of low-cost, passively-managed index funds. In its assessments of these plans, the SSA has estimated annual administrative costs between 0.25 and 0.30 percent of assets.⁷¹

A recent study by the Congressional Budget Office (CBO) confirms that a system like the Federal Employees' Retirement System (FERS) might incur costs similar to the 0.25-0.30 percent of assets estimated for recent personal account proposals. The results of the CBO study are summarized in **Exhibit 6.2**. Among existing pension plans, the personal account proposals' administrative structure probably most closely resembles FERS. (See **Box: Is the Federal Employees' Retirement System a Model for Social Security Personal Accounts?**)

⁷¹ Social Security Administration, Office of the Chief Actuary, *Estimates of Financial Effects for Three Models Developed by the President's Commission to Strengthen Social Security* (January 31, 2002).

Exhibit 6.2
Estimated Administrative Costs of Pension Systems

Pension System	CBO Estimated Percentage Reduction in Assets at Retirement	CBO Estimate Expressed as Percentage-of-Asset Annual Cost
Social Security	2%	0.09%
Federal Thrift Savings Plan	5%	0.24%
Mutual Funds	23%	1.09%
Private Defined Contribution Plans:		
Large Plan	21%	1.00%
Small Plan	30%	1.42%
Estimate based on IRS Data	9%	0.43%
GAO Estimate	19%	0.90%
SSA Estimate of Recent Proposals		0.25-0.30%
<p>Sources: Congressional Budget Office, Administrative Costs of Private Accounts in Social Security, March 2004, Table 1.1, online at http://www.cbo.gov/showdoc.cfm?index=5277&sequence=0; and various SSA memoranda evaluating personal account plans, online at www.ssa.gov/OACT/solvency/index.html. Mutual fund estimate is average for industry computed by CBO. Last column estimated by author from CBO estimates.⁷²</p>		

Far from being a minor detail, administrative costs play a critical role in assessing the costs and benefits of a personal account system. Trade-offs, in the form of lower benefits, reflect the cost of even the most minor of services (for example, an 800-number to check balances). If too much is promised or demanded in the way of services and options, the dollar value of accounts supporting benefits must be reduced.⁷³

⁷² Based on data presented in CBO report, annual cost as a percentage of assets is assumed to equal 0.04724 of the estimated percentage reduction in value.

⁷³ The cost of educating workers about their options – whether born by Social Security or by workers themselves – will be a factor in the success of a private accounts system.

Is the Federal Employees' Retirement System a Model for Social Security Personal Accounts?

The Federal Employees' Retirement System (FERS) is a defined-contribution retirement plan that covers over two million employees. Once an individual is employed for a minimum period, these funds are not forfeitable. Participants may choose among several passively managed funds. Those who opt for fixed-income or equity securities funds are required to sign an acknowledgment that the government does not protect them from loss. Individuals who do not make an election automatically have their funds invested in the Thrift Savings Fund, a government securities fund controlled by the Federal Retirement Thrift Investment Board, whose members must have substantial expertise in investment management and discharge their responsibilities solely for the benefit of plan participants.

By all accounts, FERS appears to be a small, well-run federal agency. Participants have a range of investment options that offer market rates of return and risk diversification at low cost. There is no perceptible political influence on portfolio choices, and FERS Trust Fund receipts are not counted as receipts of the federal government, and cannot be used to mask the size of the federal deficit. Thus, FERS has many features that would be attractive components of any Social Security privatization plan.

However, three important features must be taken into account if the FERS model is applied to Social Security privatization. First, FERS does not have a redistributive element – either within or across generations. Some provision within or outside a FERS-like plan would be necessary to address the low-income elderly and beneficiaries whose current Social Security benefits are under-funded.

Second, the FERS-system is premised on the existence of Social Security. FERS does not need to address poverty issues because Social Security lifts nearly all of its participants above the poverty level.

Finally, FERS participants receive an inflation-indexed annuity, thus insulating those benefits from investment fluctuations. Participants in the new FERS-like plan (as well as in the FERS plan itself) would need to hold significantly more conservative investment portfolios – in terms of both risk and liquidity – than do current FERS investors.

D. PERSONAL ACCOUNT BASICS

A system of personal accounts would differ from the current Social Security system in three fundamental ways. First, under a personal accounts system, workers would fully pre-fund their retirement benefits; in contrast to current law where workers pay taxes with an implicit understanding the government will provide benefits for their retirement. Second, there would be no blending of funds across individuals' personal accounts, and therefore, no possibility for redistributing the burdens and benefits across generations and income classes.

Third, personal accounts could generate higher rates of return – and accordingly also be subject to greater risk – than funds accumulated in the current Social Security Trust Fund. However, past performance is not a guarantee of future returns. Over the long-term, market returns are likely to be higher, but this may not hold true over any given five- or ten-year period. *When* actual, individual contributions and withdrawals are made has a considerable impact on the value of the resulting investment. Two accounts investing the same amounts over the same time period that differ only as to the year in which they started or ended may end up with substantially different balances, due to the sequence of returns.

There is no definition of “personal accounts,” but all major recently proposed plans (reviewed in the following chapter) have the following common elements: (1) current retirees and near retirees – those 55 and over – would not be eligible; (2) participation by middle-aged and younger workers is voluntary, although participation rates would likely be high; (3) account contributions would flow from a specified portion of Social Security payroll taxes (for example, 2 percent of taxable payroll); (4) participating workers would have a choice of investment options for funds accumulated in their accounts; (5) investment options would, to some degree, be restricted and regulated; (6) distributions would not be allowed before retirement (except in the case of death) but greater flexibility in distribution options would be available relative to current law (where retirees receive their payments in the form of an inflation-indexed life annuity).

1. Pre-Funding Retirement Benefits Versus Pay-as-You-Go

Plans to reform Social Security that include personal accounts would allow workers to pre-fund their own retirement similar to the way many workers currently fund 401(k) accounts and other defined contribution retirement plans. In contrast, under a pay-as-you-go retirement system, the benefits paid to current retirees are funded through salary reductions of current workers. When current workers retire, their benefits will be funded by the next generation of workers, and so on.

A pay-as-you-go system is a windfall to the first generation of retirees because they never fully paid into the system, but they enjoy full benefits.

Once it is up and running, a pay-as-you-go system can work well if conditions are favorable: the economy remains strong; the workforce grows; and the expected length of retirement does not expand. Unfortunately, demographics and mortality are not moving in directions that favor pay-as-you-go financing, which largely explains the projected fiscal shortfalls.

Just as a pay-as-you-go system is a windfall to the first participating generation, it is an extra burden to last generation to benefit from the system. These retirees have paid into the plan during their working lives, but if it is terminated, there is no funding source for their retirement benefits. This phenomenon lies at the heart of the “transition” problem for personal accounts. If current workers are contributing to their own pre-funded personal accounts, they are no longer paying for the benefits to current retirees. Where would the funds come from for the last generation of retirees under the pay-as-you-go plan?

In fact, as a result of reforms in 1983, the current Social Security system is a *partially* pre-funded system, – which is accumulating trillions to pay for future benefits. But the amounts set aside are falling far short of the amounts necessary to meet future obligations. This partial pre-funding has ameliorated the Social Security’s financial problems and reduced potential transition costs. But the remaining shortfall is so large that any move from the current system to a system of personal accounts can, for simplicity’s sake, be thought of in terms of a transition from a pay-as-you-go system to a fully funded system.

2. Private Accounts and Fiscal Balance

What does “Social Security reform” mean? Before personal account reform plans became popular, the phrase referred almost exclusively to restoring fiscal balance to a program underfunded by trillions of dollars. Concerns about the Social Security system’s future “bankruptcy” are no doubt the main catalyst for sparking the current debate. The Social Security Actuary, in its own cost estimates, refers to the various personal account reform proposals as “solvency memoranda.”

The relationship between personal accounts and solvency, however, is not at all straightforward. Do personal accounts improve solvency or do they worsen it? On the one hand, proponents of personal accounts see the proposals as restoring fiscal balance to the Social Security system. Opponents see personal accounts as worsening Social Security’s financial position.

Some confusion is understandable. Benefits of individuals who contribute to personal accounts for their entire working lives are, by definition, fully funded, and insolvency is not an issue. These fully transitioned personal account contributors would expect a better deal than they expect under the current system. However, all other things being equal, current retirees and older workers would be far worse off by being deprived of funds for their retirement by younger workers now saving for their own retirements.

Eventually, after current retirees and older workers are out of the system, a personal account system will have no financial shortfall. Until then, additional funds must be found from outside Social Security to provide benefits to current retirees and older workers. Part of the money needed pay these continuing benefits can be offset with funds that Social Security has already accumulated. The shortfall over and above the already accumulated Trust Fund assets can be thought of as cost of transitioning to the new system. Thus, any movement toward a system of personal accounts involves a large, but temporary cost. For this reason, personal accounts *by themselves* worsen the financial condition of the Social Security Trust Fund over the 75-year horizon used to score Social Security reforms Trust Fund. However, personal account proposals

usually attain fiscal balance by reducing benefits, making cash transfers from the Treasury general fund, or some combination of the two.

3. Transition Costs

Outside financing will be required to change the current Social Security system to a new system of personal accounts. All personal account proposals include transfers from the Treasury general fund to the Social Security Trust Fund. Because the Trust Fund currently has substantial surplus balances, there is no immediate need for new funding, even under the largest personal account plans. But sooner or later, the Trust Fund will be exhausted (or reach a specified minimum balance) and subsidies must start.

Transition costs are sometimes exaggerated by ignoring existing Trust Fund assets, arguing that bonds held by the Trust Fund are “paper assets” or “I.O.U.s.” This may be true, but these paper assets are backed by the full faith and credit of the United States government, still considered among the safest financial investments in the world.

Others argue that the government has already spent the money accumulated by Social Security. This is more an indictment of general government budgeting practices than a shortcoming of Social Security finances.

To illustrate: A family simultaneously takes out a \$100,000 mortgage to buy a house and sets up a Trust Fund with an initial balance of \$15,000 for college education. If the family – in a practice analogous to that currently employed by the federal government – claims that its indebtedness is only \$85,000, it is being dishonest. It is not, however, directly damaging the financial value of the Trust Fund.

Transition costs are also exaggerated by simply adding all necessary future cash flows from the general fund to the Trust Fund to calculate the total transition costs, without taking into account the time value of money. This is especially misleading given the 75-year-long horizon typically used in estimating Social Security finances. The simplicity gained by using addition unjustifiably distorts the cost comparisons of Social Security reform alternatives. Any calculations of Social Security costs not offered in present value terms (or in some equivalent) cannot be properly evaluated.

Two additional factors are important to keep in mind in evaluating alternative reform proposals. First, the end-of-period financial status of the fund must also be taken into account. A proposal that leaves the Trust Fund with a \$1 trillion balance will be viewed more favorably – all other things being equal – to one that leaves a zero balance.

Second, many plans for personal accounts do not simply redirect funds from the current system to fund personal accounts but they also make cuts in currently scheduled traditional benefits. A plan that includes benefit cuts will cost less than one that does not, because it finances part of the transition costs by cutting benefits.

Finally, one must always consider that, although the current system does not have transition costs *per se*, it does have a large unfunded obligation. Many opponents of personal accounts object that the costs of transitioning to a personal account plan are enormous. However, these costs may not be large compared to alternative reforms, and they should be compared to the costs of fully funding the current system. According to the 2003 Trustees' Report, Social Security's unfunded obligation is \$3.5 trillion.⁷⁴ Calculations presented in the next chapter will show that some plans require transition costs of more than \$3.5 trillion, and some require less.⁷⁵

4. National Saving

Many advocates of personal accounts argue that a system of personal accounts will increase national saving that will, in turn, increase long-term economic growth. Under a system of personal accounts, they argue, tens of millions of Americans who are not now saving for retirement will be.

However, although there will be enormous shifts in savings patterns, net overall national saving – which is what matters from the perspective of economic growth – will likely not increase as a result of personal accounts. How switching to a system of personal accounts would affect saving is complicated. To simplify, we will examine this issue in two parts.

Part one is the impact of restoring the Social Security system to actuarial balance. Currently, Social Security has unfunded obligations totaling \$3.5 trillion. If the Treasury borrows this amount and gives it to Social Security, the Trust Fund is once again solvent. From an economy-wide point of view, however, all that has happened (assuming that bonds issued did not disrupt the markets) is the government's implicit debt in the form of an unfunded Trust Fund liability has been transformed into an explicit debt of the Treasury general fund. There is no change in overall government liabilities, and therefore, no change in national saving.

Part two is the impact of creating personal accounts. Although personal accounts do create a new form of private wealth, to the extent government borrows to pay transition costs, the increase in government borrowing offsets the increase in personal saving, yielding no increase in net national saving.

If, however, instead of borrowing to restore fiscal balance or create personal accounts, the change is financed by reducing benefits or raising taxes, national savings does increase. For example, if the only proposed change to Social Security was a benefit reduction that reduced the current unfunded liability, the federal government's net liabilities would be reduced overall because it would not issue any new debt.

Alternatively, if a system of private accounts is created and transition costs are funded by reducing benefits, individuals would experience an increase in personal wealth without an

⁷⁴ 2004 Social Security Trustees Report, Section IV. B. 4. "Summarized Income Rates, Cost Rates, and Balances," online at www.ssa.gov/OACT/TR/TR03/IV_LRest.html#wp244997.

⁷⁵ See, for example, **Exhibit 7.11**.

offsetting increase in federal debt. Both scenarios result in potentially increasing overall saving across the economy.

However, even this increase could be undercut if – in response to the creation of personal accounts – individuals reduce their other, non-Social Security forms of saving. Economists do expect that many individuals – primarily those with higher incomes – would not, in the aggregate, save more as a result of personal accounts. However, an increase in net saving is expected for those with low or no personal savings because personal accounts would represent entirely new saving.

In summary, although personal accounts may appear to create substantial new savings, much of this increase in personal savings would be offset by reductions in other forms of personal savings (for example, in pension plans or in individual retirement accounts) or increased government indebtedness. Personal accounts could generate new saving (1) if they are funded by benefit reductions or tax increases; and (2) only to the extent personal account balances exceed the amount of saving individuals would have undertaken in the absence of personal accounts.

5. Risk – and What Can Be Done About It

The future, of course, is uncertain, and, because it is difficult to conceive of multiple possible future outcomes, the future is discussed primarily in terms of one “most likely” outcome. Regarding Social Security, the “most likely outcome” is estimated using the SSA’s intermediate assumptions over an arbitrary 75-year horizon, which shifts forward with each annual report.

The SSA estimates financial effects of reform proposals by calculating results under various assumptions about market rates of return. These results are presented in the next chapter.⁷⁶ In a nod to future uncertainty, the SSA also publishes estimates under low-cost and high-cost assumptions. Using different assumptions shows how the underlying premise of the Social Security debate – that Social Security will go broke – is itself uncertain. Under the intermediate assumptions of the 2003 Trustees Report, the Trust Fund is exhausted in 2042. Under high-cost assumptions, it is exhausted in 2033. And under low-cost assumptions, Trust Fund assets are never exhausted over the 75-year horizon.⁷⁷

This type of uncertainty underlies all aspects of Social Security reform. Personal account proposals add an additional layer of uncertainty, arising primarily from uncertainty about the long-term performance of financial markets and the variety of investment and distribution options available.

Investing in financial markets carries a variety of risks to investors, some of which are avoidable with proper planning. The best way to minimize investment risk is through diversification – investing in a wide range of stocks and bonds. Diversification is commonly achieved through

⁷⁶ See, in particular, **Exhibit 7.9**.

⁷⁷ Under the intermediate assumptions of the 2004 Social Security Trustees’ Report, the Trust Fund is also exhausted in 2042. Under high-cost assumptions, it is exhausted in 2031; under low-cost assumptions, it is not projected to be exhausted over the 75-year horizon.

investing in index funds, which closely track the movement of a well-known index, for example, the Standard and Poor's 500.

Personal account proposals usually require that personal accounts be invested in index funds or some other broad, diversified portfolio. This has at least two benefits in addition to reducing risk. First, it significantly minimizes administrative costs because accounts holders are not paying for investment advice or active portfolio management – which can easily reach one percent of assets per year.

Second, it prevents personal account holders from “gaming” the system. If account holders know, or even suspect, that the government will guarantee some minimum return on investment in personal accounts, they will have an incentive to deliberately choose risky investments that might generate high returns because their downside exposure has been limited.⁷⁸

Although much risk can and should be eliminated with diversified investment, a substantial amount of undiversifiable market-wide risk will always loom over personal account proposals. Because even diversified portfolios of equities, historically over long periods, earn substantially greater returns than government bonds, there is a large margin of error: Even if stock market performance is below expectations, it may still be greater than a far less risky investment in government bonds. Nevertheless, because low returns or even negative returns are possible, personal accounts may leave retirees less well off.

This leads to the important issue of guarantees. Some plans explicitly provide minimum guarantees to personal account holders. But even without explicit guarantees, there will probably always be an implicit financial guarantee that personal accounts will provide minimum benefits if the market does not perform adequately. At least two examples support this. First, during the thrift institution crisis of the late 1980s, Congress was quick to announce that account holders in failed thrift institutions would all be made whole no matter what the size of their investment, even though the explicit guarantee covered only amounts up to \$100,000. Second, although the Federal National Mortgage Association (Fannie Mae) is a private company with no explicit guarantees from the federal government, it is commonly believed that – given Fannie Mae's central role in mortgage markets – the federal government implicitly guarantees hundreds of billions of dollars in bonds.

Without guarantees, personal account holders are subject to market risks unlike what they experience under the current Social Security system.⁷⁹ If these risks are minimized or eliminated through explicit or implicit government guarantees, this is an additional transition cost of personal accounts. These additional costs are usually hidden from view because cost estimates usually assume investment returns close to historical averages.

⁷⁸ Some refer to this general type of behavior as “moral hazard.”

⁷⁹ However, personal accounts are probably less subject to manipulation by future legislatures because they are “owned” by individual workers.

6. Annuitization and Inheritability

Insurance companies offer annuities with a variety of investment and payment options. One common feature is that, after contributing funds, the investor is entitled to a stream of payments for a period of time that ends upon, or is related to, the death of the investor and/or the investor's spouse. Annuities designed for retirement begin payment at some specified retirement age. The periodic payments may be (1) a fixed dollar amount, possibly adjusted for inflation; or (2) vary based on the performance of the underlying portfolio funding the annuity. Some annuities also offer an additional death benefit.

Because the stream of annuity payments depends on longevity, annuities are priced according to actuarially determined life expectancy. Similarly, any promises or guarantees in addition to periodic annuity payments reduce the amount of those payments for any given up-front investment.

Although personal accounts “belong” to the individual holders, most plans restrict how retirement benefits are paid. All plans require at least some minimum level of monthly benefits, allowing individual discretion only for amounts in excess of the required minimum. Some plans include further restrictions, such as prohibiting lump sum distributions of benefits. Nevertheless, personal account holders would have more choice in how they receive benefits than current Social Security recipients.

Advocates of personal accounts note that wealth accumulated in personal accounts may be inheritable. However, inheritability is a “death benefit” that comes at a price, as it would with a private annuity: All other things being equal, a personal account annuity without inheritability will provide greater monthly benefits than an inheritable one.

Estimates of monthly benefits under a personal account proposal must be examined in light of the assumptions made when calculating benefits. In general these complex computations are made assuming full annuitization, which, like current Social Security benefits, does not allow the transfer of the underlying assets at the death of the account holder. Therefore, most published estimates of monthly benefits under personal accounts assume that accumulated personal account wealth is not inherited.

7. Traditional Benefit Offsets for Personal Account Holders

Personal account proposals do not entirely eliminate traditional Social Security retirement benefits, although they do envision traditional benefits declining in importance over time. Workers choosing to contribute to personal accounts would receive benefits distributed from personal accounts, in addition to standard benefits reduced below the amount that otherwise would be available if the personal account option were not chosen.

Reducing Traditional Benefits

How much should traditional benefits be reduced for personal account holders? The complexity of this question has resulted in a significant degree of confusion. Before getting into the details, keep a few basic ideas in mind. First, distinguish between general reductions in traditional benefits that apply to all retirees and further reductions in traditional benefits that only apply to personal account holders. Under the majority of personal accounts plans reviewed in this report, traditional benefits will be reduced *regardless* of whether an individual chooses to participate in the voluntary account program. The additional, specific reduction of traditional benefits which varies according an individual's degree of investment in a personal account has many names.⁸⁰ We will refer to it here as a "benefit offset."

Second, the greater the benefit offset, the less attractive the personal account option will be. However, larger benefit offsets make personal account proposals less costly for the Trust Fund.

Finally, personal account holders should not need as large a traditional benefit as those without accounts; therefore, their traditional benefits will be reduced.

The next question becomes "reduced by how much?" The account offset could be computed simply: For example, the benefit offset will be 40 percent of traditional benefits, leaving the account holder with 60 percent of traditional benefit amounts. Alternatively, the benefit offset percentage could reflect the increasing value of personal accounts and increase by 2 percent per year.

Account offsets in actual proposals, however, are more complicated. One method computes the benefit offset as a fraction of the accumulated value of the personal account. This method guarantees that combined (traditional plus personal account) benefits will never fall below benefits received by non-account holders. Another method reduces monthly benefits by a hypothetical annuity funded by the amount of actual contributions paid into the personal account but invested at a different (usually lower) rate of interest. Under this method, personal account holders will know that they made the right choice if the return on their personal account exceeds the rate assigned to the hypothetical offset annuity.

Benefit Trade-offs

To participate in a personal account, workers must "give up" some portion of the Social Security benefits promised under the current payment schedule. Most of the personal account proposals reviewed do not detail what amount – if any – would be available as minimum guaranteed payments. Without knowing the "price tag" associated with a personal account proposal, workers cannot effectively analyze the risks and trade-offs of a given option.

⁸⁰ The President's Commission of Strengthening Social Security (2001) uses "benefit offset." The SSA uses "benefit offset" and "hypothetical offset annuity." Diamond and Orszag (2002) refer to "individual liability accounts," while Thompson and Wilken (2002) use the term "recapture tax."

Even with more specific information about proposed changes to benefit levels, multiple assumptions would be needed to quantify the trade-off. This would increase the uncertainty and risk of choosing to participate in a personal account plan.

8. When Is a Cut a Cut?

The phrase to avoid in Social Security reform is: “Under this plan, your Social Security benefits will be cut.” Therefore, defining “benefit cut” is a critical issue. It boils down to what standard is appropriate for assessing a proposal’s benefits.

There are three commonly used standards. The first is *current* benefit levels, adjusted for inflation. The second and highest standard is benefits that are *scheduled* under current law. The third is benefits that are *affordable* under current law.

The following example illustrates the importance of choosing a standard. Monthly benefits are now \$1000. In 20 years, inflation requires a \$2000 payment to provide the same real benefit. Scheduled benefits (which increase at rate greater than inflation) might be \$2800. But because the Trust Fund is expected to be exhausted by that time and annual Trust Fund income inadequate to cover expense, affordable benefits might only be \$2200.

If under a certain proposal, benefits in 20 years are estimated to be \$2600, is this an increase or reduction in benefits? The answer depends on the standard for comparison. Relative to current benefits, it is \$600 increase; relative to affordable benefits, it is a \$400 increase. But relative to scheduled benefits, it is a \$200 cut.

No standard is necessarily better than another. Nor does the use of any given standard pose a problem. Rather, problems arise from the failure to clearly specify a standard. All assertions about how benefit levels would change should specify which standard is being used. Otherwise the statement is at best confusing.

E. QUESTIONS FOR EVALUATING PERSONAL ACCOUNT PROPOSALS⁸¹

The next chapter discusses seven recent personal account proposals. Among the most important issues to consider under any plan are the following:

- *To what degree, and over what period, would benefits under the existing system remain in place?* Most new Social Security reform proposals offer some degree of privatization; in many respects the differences are a matter of degree. Some privatization plans leave much of the current system in place and add a relatively small contribution to fund new individual accounts. Others bifurcate the current system, creating individual, defined-contribution accounts, but leaving a significant defined-benefit component in place. Even plans that would completely transform Social Security to a fully defined-contribution plan would do so after a long transition period.
- *Will there be a safety net for low-income beneficiaries?* The current Social Security system redistributes benefits from high-income to low-income beneficiaries. Defined-contribution plans leave little room for redistribution.
- *How much discretion will individuals have?* Will accounts be mandatory or optional? Must individuals annuitize all benefits or may they take out lump-sums or use a mix of methods? Can individuals select only from a choice of index funds or from a much broader array investments as they would with a private investment manager?
- *Will benefit payments be subject to tax? If so, at what rate?* If benefits are in the form of an annuity, it could be fully taxed, tax-exempt, or a tax-free return of initial basis. (And, if it a return of basis, how is basis determined? Would a retiree have basis in the employee contribution alone or in the combined employee-employer contribution?) If benefits are paid in the form of a death benefit, would that payment be tax-free similar to the treatment of life insurance under current law or would it be taxable income with respect to the decedent?
- *What will the plan “cost” beneficiaries in lost traditional benefits as a trade-off for a personal account?* How would reductions in traditional Social Security benefits be calculated? Could a personal account payout be taken as a lump sum or an annuity? If a mandatory annuity, would it be fixed or variable? What are the assumed interest rates?

⁸¹ Proposals should also be evaluated for equity, fairness, simplicity, certainty, and transparency. For a parallel discussion of these issues in the context of tax reform, see AICPA Tax Policy Concept Statement No. 1: *Guiding Principles of Good Tax Policy: A Framework for Evaluating Tax Proposals* (2001).

Chapter 7

Reform Proposals

SUMMARY

- Reform plans fall into three general categories: (1) plans without personal accounts; (2) plans with medium-sized personal accounts; and (3) plans with large personal accounts.
- Plans without personal accounts would reduce scheduled benefits, increase payroll taxes, or some combination of the two.
- Plans with medium-sized personal accounts require significant transition financing, but this would be less than the current system's unfunded liability. Benefits paid under these plans would generally be below those scheduled under current law. Benefits scheduled under current law will be reduced regardless of whether an employee participates in a private account.
- Plans with large personal accounts require transition financing greater than the current system's unfunded liability. Benefits paid under these plans, however, would generally be larger than those scheduled under current law.
- Because personal account plans move Social Security from a partially funded to a fully funded system, extra resources from outside the program or cost savings from inside the program are needed to fund the transition.

A. INTRODUCTION TO EVALUATING AND DISTINGUISHING PROPOSALS

This chapter reviews three Social Security reform proposals in detail and provides a summary of four other plans. The three most important characteristics of all these plans are: (1) the modifications to the current system's basic structure designed primarily to improve the Trust Funds' finances; (2) the size of contributions to personal accounts; and (3) the amount of new financing required from general (non-Social Security) Treasury funds.

1. In-System Financial Improvements

The most common method of improving system finances is reducing benefits relative to those scheduled under current law. For political reasons, benefit reductions are never proposed for current retirees or near-retirees (i.e., those 55 or older). Benefit reductions typically take the form of either: (1) modifications to inflation-adjustment factors, (2) adjustments for projected increases in mortality, or (3) technical adjustments to the benefit formula. The objective of these

modifications is cost saving. Six of the seven plans discussed below involve in-system adjustments designed to improve the Trust Fund's actuarial balance.

The second method of improving the Trust Fund's actuarial balances is increasing payroll taxes. Payroll tax increases can take the form of increasing the tax rate, increasing the ceiling on earnings (\$90,000 in 2005), or some combination of the two.⁸² Three plans involve increasing Social Security payroll taxes.⁸³ The idea of increasing Social Security payroll taxes has received much less attention in recent years.

2. Size of Personal Accounts

Six of the seven Social Security reform plans reviewed in this chapter involve the creation of personal accounts. These plans vary, but the most important variable is the size of personal accounts contemplated. A good measure of personal account size is the percentage of payroll required to be contributed. In theory, these could range anywhere from \$1 to the full contribution required under current law – 12.4 percent of the maximum amount (\$90,000 in 2005). In practice, the average contribution rate under each of these plans is between 1.5 and 6.5 percent. Contribution rates higher than 6.5 percent have not been proposed and would involve enormous transition costs.

3. Size of Non-Social Security Funding

As noted in Chapter 6, maintaining benefits during the switch from a pay-as-you-go retirement system to a full or partially pre-funded system entails a transfer of funds. The degree of this pre-funding (that is, the size of personal accounts) is a major determinant of these transition costs. These costs – like the costs of restoring fiscal balance to the current system – can be funded from within the Social Security system by benefit cuts and payroll tax increases, or from sources outside the Trust Fund structure. However, all six personal account plans discussed require all or part of these transition costs to be funded by payments from the Treasury general fund. Some plans do not specify the source of funding, while others propose specific reductions in the federal government's on-budget deficit, excluding Social Security. If transition costs are not financed from within the system, from tax increases or from non-Social Security budget cuts, they must be financed by increased government borrowing. Only one proposal discussed here (Diamond-Orszag) requires no outside financing.

In summary, a reformed Social Security system needs enormous sums in order to restore Trust Fund balance and fund the transition to personal accounts. The funds must come either from within the system – primarily through benefit cuts – or outside the system – primarily through

⁸² Another method akin to increasing taxes is to increase mandatory enrollment among current workers. This immediately increases total payroll tax inflow immediately, while benefit outflows increase only modestly over time. This is why extending Social Security to all state and local government workers is a financial gain for the system, and, in the inverse, why diverting payroll taxes from the Trust Fund to personal accounts immediately *reduces* the tax inflow, while Trust Fund the reduction in benefit outflow is gradual.

⁸³ The plan proposed by Senator Graham (not categorized as including a tax increase) gives workers the option to pay more taxes in order to receive more benefits. Because this is not attractive deal compared to other options of the plan, the SSA believes an insignificant few would choose this option.

increased borrowing by the federal government. As noted in Chapter 1, comparison of numbers and data is complicated by the necessity to use multiple year Trust Fund reports.

***Reminder to Readers:** As previously noted, the data presented in Chapter 1 are from the 2004 Trustees' Report, the most recent available Report at the time of this writing. Data and estimates presented in this chapter, in most cases, are based on the 2003 assumptions employed in the latest available estimates from the SSA. Estimates for Model 2 presented in this chapter are based on 2001 assumptions. Therefore, the figures will not be strictly comparable.*

B. A PLAN FOR LARGE PERSONAL ACCOUNTS: FERRARA-RYAN

Peter Ferrara is a Senior Fellow at the Institute for Policy Innovation and Director of the Social Security Project of the Club for Growth. In 2003, he authored a study published by the Institute for Policy Innovation entitled "A Progressive Proposal for Social Security Personal Accounts."⁸⁴

Representative Paul Ryan, R-Wis., introduced the *Social Security Personal Savings and Prosperity Act of 2004* (H.R. 4851),⁸⁵ which is virtually identical to the Ferrara plan. The Social Security Administration's Office of the Actuary (SSA) has analyzed both plans. Where the plans differ, the SSA analysis of the Ferrara plan will be the source of reference for this chapter.

1. Account Contributions

Under the Ferrara-Ryan plan, all workers who are at least 55 in the year immediately following enactment will pay into and receive benefits under the current system for the rest of their lives. Each worker under 55 can elect to have a portion of their payroll taxes redirected from the Trust Fund to a personal account: Ten percent of the first \$10,000 of earnings and 5 percent of earnings above \$10,000 up to the maximum amount. The SSA estimates that average contributions to personal accounts will be 6.4 percent of earnings.

The plan is "voluntary." However, because the plan effectively guarantees a minimum benefit equal to what is payable under current law, *and* the portion of benefits treated as disbursed from personal accounts would be entirely tax free, a self-interested, rational worker would elect to direct contributions to a personal account.

2. Account Investment

Funds deposited in personal accounts would be invested automatically, in a three tier investment process. First, between the point at which wages are earned and when amounts are credited to an

⁸⁴ Social Security Administration, Office of the Chief Actuary, *Estimated Financial Effects of The Progressive Personal Account Plan*, December 1, 2003. Hereinafter, SSA Ferrara memorandum. Available online at http://www.ssa.gov/OACT/solvency/PFerrara_20031201.html.

⁸⁵ Senator John Sununu, R-N.H., issued companion legislation, *The Social Security Personal Savings Guarantee and Prosperity Act of 2004* (S.2782).

individual worker's account, the worker's deposits would earn interest equal to the long-term Treasury bond rate.

Second, after an individual account is credited, the worker could choose one of three investment options. The default option would be a portfolio with 65 percent in a broad-based equity index fund and 35 percent in a broad-based corporate bond index fund. The other two options would be 80 percent equity/20 percent bonds and 50 percent equity/50 percent bonds.

Once an account has accumulated a minimum amount of \$2,500 (in the first year of the program, indexed for inflation thereafter), the worker could enter the third investment tier, which would offer a broad range of investment options provided by qualified private investment companies.

The SSA notes that, because generous minimum guarantees are provided and some workers would therefore be inclined to choose risky investment, there could be a wide range of variation in the returns earned by individual portfolios. Nevertheless, The SSA assumes that, on average, personal accounts would generate returns close to that of the default portfolio. Because accounts will be centrally managed, the SSA assumes annual administrative costs will be relatively low – 0.25 percent of assets.

3. Conventional and New (Personal Account) Benefits

For all personal account holders, conventional Social Security retirement benefits would be reduced as personal account benefits increased. The reduction in conventional retirement benefits would be small for the first retirees to receive payments from annuities funded by personal accounts, because they have only contributed to personal accounts for a short portion of their working lives. Each succeeding class of retirees, however, would see larger and larger reductions in conventional benefits.⁸⁶

Eventually, conventional retirement benefits would be eliminated altogether, beginning in the first retirement year of workers who entered the workforce at inception of the new personal accounts system. Because they will have made deposits into these accounts throughout their entire working lives, these individuals – who will receive no traditional Social Security retirement benefits – would presumably have large balances in their personal accounts.

Pre-retirement benefits paid to the disabled (under the Social Security Disability Insurance program), to their survivors, and to their surviving (non-elderly) spouse would not be affected by the proposal. These benefits would continue to be paid and to be funded as under current law.

⁸⁶ Benefits scheduled for payment under current law would be reduced by an amount equal to those payments multiplied by a computed reduction factor which may have any value from zero to one. The formula for this factor is the ratio of (a) the present value of actual contributions to the account over the individual's working life to (b) the present value of contributions to the account over the individual's working life, assuming the personal account program had been available over the individual's entire working life. For older members of the current workforce, the numerator of this ratio is low relative to the denominator. For entrants new to the workforce at the programs start, the numerator and denominator are equal.

At retirement, account funds must first be used to purchase an annuity that provides benefits that – when added to any remaining conventional Social Security benefits – equal benefits scheduled under current law. This annuity would have payments determined at the time of retirement, be indexed to price inflation, and provide benefits at least equal to those provided under current law.

The retiree could use any remaining funds for any purpose. All accumulations in and disbursements from individual accounts, including annuity payments, would be exempt from federal income tax. Any funds not necessary to fund minimum annuities could be bequeathed.

If the stock market performs along historical lines, funds accumulated in personal accounts will, on average, be more than adequate to fund the purchase of the required annuities. However, if actual market performance falls short the federal government would make up the difference, thereby guaranteeing the benefits scheduled under current law.

4. Account Impact on Trust Fund

The diversion of funds from traditional Social Security program to the new accounts would have a significant adverse impact on Trust Fund finances – particularly in early years of implementation. According to the SSA, in the second year after implementing the Ferrara plan, benefits paid out would equal 10.65 percent of payroll, but contributions to the Trust Fund would be reduced from the current level of 12.4 percent to 6.69 percent – the difference of 5.71 percent would be contributed into accounts.

Over the long haul, account contributions would average 6.4 percent – leaving only 6 percent for the Trust Fund. Meanwhile, the cost of benefits would peak at almost 14 percent in 2027; only by 2056 would benefit expenditures drop below 6 percent. Trust Fund finances would begin to improve in 2056, but the final 25 years of surplus is not enough to overcome the first 50 years of deficit. These financial flows are illustrated in **Figure 7.1**. For the usual 75-year period SSA measures, the net effect on the Trust Fund’s actuarial balance is an increased deficit equal to 0.91 percent of payroll.⁸⁷ In other words, without new sources of funds, the Trust Fund would become insolvent in 2015 instead of the 2042 date predicted in the 2003 Trustees’ Report.

5. Build-Up of Personal Account Balances

Deposits of 6.4 percent of payroll invested over a long period in a portfolio weighted toward equities will generate large balances, which can become the basis for large annuities, large bequests, or some combination of the two.

For example, a worker making \$40,000 a year enters the workforce in the first year of the program and direct 6.4 percent of salary (\$2,560) into a personal account. If that salary grows at 1 percent per year over the rate of inflation, after 40 years, that worker will accumulate an account balance of slightly more than \$500,000 inflation-adjusted dollars.

⁸⁷ All figures cited in this paragraph are from Exhibit 1 of the SSA Ferrara memorandum.

Analogously, under the Ferrara plan, an average of 6.4 percent of payroll – about \$290 billion – would be deposited in the first year. After 40 years of similar contributions, the estimated account balances would grow to approximately \$35 trillion inflation-adjusted dollars in 2045. By 2078, personal accounts assets would total over \$71 trillion.⁸⁸

6. Non-Social Security Funds

Upon implementation of Ferrara-Ryan, the Trust Fund would begin running deficits instead of its current surpluses, and would need outside funding sources by 2014. However, Ferrara-Ryan chooses to draw on out-of-system sources almost immediately, beginning in 2005 and ending in 2054. This inflow would peak in 2029 when it equals 7.25 percent of payroll.

Unlike other plans to reform Social Security that require outside funding, the Ferrara-Ryan plan identifies two funding sources, which in combination would – according to the SSA – more than adequately fund shortfalls. The first, larger source would be specified portion of corporate income tax revenue.⁸⁹ The second source would be a portion of general revenues equal to the estimated cost savings from a gradual⁹⁰ reduction in federal spending by 8 percent.

By 2029, the earmarked corporate taxes and designated cuts in government spending would be sufficient to allow some funds to be sent back to the Treasury. By 2055, the 12.4 tax rate could be cut because the Trust Fund would no longer need any outside source funding to meet its obligations and these earmarked funds would be used to fund tax reductions. By 2078, projections indicate that the tax rate could be cut 2.5 percentage points, to 9.9 percent, with 6.4 percentage points going to personal account contributions and 3.5 percentage points into the Trust Fund.

Although this plan identifies its planned funding sources, [earmarking corporate tax revenue for funding Social Security would result in larger, non-Social Security federal deficits.

7. Size of Federal Subsidies to the Social Security Trust Fund

As discussed in Chapter Six, there are many standards with which to measure the “costs” of switching from the current system to a system of personal accounts. Instead of adding further

⁸⁸ The analogy between the example and Ferrara plan is not complete. Withdrawals from personal accounts would occur in cases of death before retirement, reducing the net rate of asset accumulation. For simplicity, this example does not include any pre-retirement withdrawals.

⁸⁹ This would be a set-aside of the corporate tax revenue associated with the equities held in the individual accounts. If the corporate tax rate is 33.3 percent, two-thirds of all investment in individual accounts is in equities, and the return on equity is 5 percent. Every \$20 invested in individual account equity generates \$1 of income to the account holder; therefore, \$30 invested in private accounts generates \$1 of equity income. To generate this \$1 of equity income, the corporation had to generate \$1.50 of pretax income. Under these assumptions (similar to those made by the SSA), every \$100 dollar of account balance generates \$1.67 annually of corporate tax revenue collected by the Treasury that would be directed to the Trust Fund.

⁹⁰ Under the plan’s specifications, spending would be reduced by 1 percent each year starting in 2005 and lasting for at least 8 years (through 2012).

confusion to the discussion, this report will measure the financial status of the Trust Fund by focusing on the present value (PV) of cash flows over the 75-year horizon.⁹¹

At the end of 2002, the Social Security Trust Fund had \$1.38 trillion of assets. According to the intermediate projections in the 2003 Trustees' Report, without any reform the Trust Fund will exhaust its funds in 2042. The present value of the anticipated deficits from 2042 to 2076 is \$4.92 trillion.

Therefore, the present value of the flow of funds from the general Treasury fund to the Trust Fund necessary for Social Security to meet all its current obligations is \$3.54 trillion⁹². This figure is sometimes called Social Security's "unfunded obligation."

Under the 2003 Report of the Trustees intermediate assumptions, the Trust Fund grows to \$1.72 trillion by the end of 2004. The SSA assumes that the Ferrara-Ryan plan takes effect in 2005. From 2005 through 2054, funds are transferred into the Trust Fund from the Treasury general fund, the present value of which \$7.60 trillion. In 2055 and after, Trust Fund balances maintain specified reserves and the remaining surpluses are used to reduce payroll taxes, yielding a present value cost of the payroll tax cut (from 2055 through 2076) of \$0.67 trillion. Therefore, the present value of cash flows without tax cuts is \$6.93 trillion.

As explained further in the Technical Appendix, in addition to cash flows, calculating the unfunded obligation also includes beginning assets and the present value of ending assets. Higher beginning assets reduce the unfunded obligation; higher present values of ending assets increase it. The formula used to calculate the unfunded obligation is:

$$\text{Unfunded obligation} = \text{PV}(\text{cash outflows}) + \text{PV}(\text{ending assets}) - \text{beginning assets}$$

Using this formula, the unfunded obligation of the Ferrara-Ryan plan is \$6.22 trillion, without a payroll tax cut.

Because different plans result in different ending balances, it is easier to compare costs across plans by assuming the same ending balance. Fortunately, the SSA computes all unfunded obligations using (1) actual ending balances, estimated according to the plan's specifications; and (2) ending balances of zero. (**Exhibit 7.9**, found at the end of this chapter, lists both calculations for all plans discussed.) To calculate the unfunded obligation with zero ending balance, the present value of the ending balance is simply subtracted from the unfunded obligation, or:

$$\text{Unfunded obligation} = \text{PV}(\text{cash outflows}) - \text{beginning assets}$$

⁹¹ We will measure Trust Fund assets at the beginning of the period, the present value of cash flows over the period, and present value of assets (if any) remaining at the end of the period.

⁹² This means that, if the government transferred \$3.54 trillion into the Trust Fund in 2003, there would no longer be any Social Security financial shortfall. As the 2003 Trustees' Report points out, balance could also be achieved by an immediate and permanent tax increase of 1.92 percentage points of payroll (from 12.4 percent to 14.32 percent) or an immediate and permanent 13 percent reduction in scheduled benefits.

For Ferrara-Ryan, the unfunded obligation assuming zero ending balances is \$5.56 trillion. (These figures are summarized in **Exhibit 7.1**.) Therefore, with beginning assets of \$1.38 trillion (at the end of 2002), if the federal government put \$5.56 trillion into the Trust Fund in 2003, the Ferrara plan could, without further cost to the general Treasury account, achieve its personal account results, but without maintaining a reserve balance or implementing payroll tax cuts.

Exhibit 7.1
Financial Subsidies for Social Security:
Current Law (as Scheduled) and Ferrara-Ryan
(Dollar amounts in billions)

	Current Law (2003)	Ferrara-Ryan (without payroll tax cut)
(A) PV(End Assets)	\$0	\$665
(B) PV(net outflows)	\$4,922	\$6,935
(C) Begin Assets	\$1,378	\$1,378
(D) Unfunded Obligation [(A)+(B)-(C)]	\$3,544	\$6,222
Unfunded Obligation with zero ending assets [= (D) - (A)]	\$3,544	\$5,557
Source: SSA Ferrara memorandum; 2003 Trustees' Report; and Calculations file for details.		

C. A PLAN FOR MID-SIZED PERSONAL ACCOUNTS: REFORM COMMISSION MODEL 2

In 2001, President Bush created the President's Commission to Strengthen Social Security, charged with turning the following guiding principles into "concrete reforms:"⁹³

1. Benefits for current retirees and those nearing retirement should not change;
2. The Social Security system should be restored to a sound financing footing;
3. Personal savings accounts should be available to younger workers who want them;
4. The entire Social Security surplus must be dedicated exclusively to Social Security;
5. Social Security payroll taxes must not be increased;
6. Social Security funds shall not be invested in the stock market;
7. Social Security's disability and survivors components must be preserved.

It also clarified that personal accounts should be "individually-controlled," and that they should "augment the Social Security safety net."

⁹³ See Executive Order 13210 (May 2, 2001). The Commission was co-chaired by former Senator Daniel Patrick Moynihan, D-N.Y., and Richard Parsons, Co-Chief Operating Officer of AOL-Time Warner. See also, George W. Bush, "Address of the President to the Joint Session of Congress," Washington, D.C., February 27, 2001.

In its December 21, 2001, final report, the Commission presents three alternative models for Social Security, all three of which include voluntary personal accounts.⁹⁴ Reform Model 2 has attracted the most interest of the three Commission proposals, and is our focus for the remainder of this section.

Under Model 2, workers can create voluntary personal accounts with annual contributions equal to 4 percent of payroll up to \$1,000 with a higher contribution rate for low-income workers. When fully phased in, average contributions would equal about 2.4 percent of payroll. In addition to reducing traditional benefits in relation to personal account contributions, Model 2 also reduces benefits by switching from a wage index to a price index to adjust worker benefits at retirement. Model 2 does increase benefits for low-income workers and surviving spouses, but these increases are small relative to reductions in benefits due to the switch to price indexation. Finally, the plan would need large transfers from the general Treasury fund to restore balance to the Social Security Trust Fund.

Like Ferrara-Ryan, Model 2 includes voluntary personal accounts, but on a substantially smaller scale. Unlike Ferrara-Ryan, Model 2 includes major changes (mostly reductions) in traditional Social Security benefits even for those not opting for personal accounts. Because it proposes smaller personal accounts and reduces conventional benefits, Model 2 needs less outside funding than Ferrara-Ryan.

1. From Wage- to Price-Inflation Indexing

Under current law, retirement benefits are determined as a percentage of average prior earnings, adjusted by increases in the national average wage rate from the time wages were earned to the time of retirement. In general, wage inflation exceeds price inflation; over a period of decades the cumulative difference can be significant. Model 2 would substitute price indexing for wage indexing beginning in 2009. For each successive class of retirees after this date, scheduled benefits would be about 1 percent less than under current law. This provision reduces the actuarial deficit by 2.07 percent of payroll and, therefore, would by itself eliminate the all projected Trust Fund imbalances.

2. Enhanced Benefits for Low Earners and Widow(er)s

Model 2 includes two provisions that partially offset the negative impact of the wage-to-price indexing provision on certain beneficiaries. The first is a minimum benefit provision that would ensure that benefits would not fall below 120 percent of the poverty level. The second would raise the benefit percentage that surviving spouses would receive to 75 percent of the benefit that would be received by a couple if both were still alive. Currently, surviving spouse receive between 50 percent and 67 percent of the benefit. Together these proposals increase the actuarial

⁹⁴ President's Commission to Strengthen Social Security, *Strengthening Social Security and Creating Personal Wealth for All Americans, Final Report*, Washington, D.C., 2001. See also, Social Security Administration, Office of the Chief Actuary, *Estimates of Financial Effects for Three Models Developed by the President's Commission to Strengthen Social Security* (January 31, 2002). Hereinafter, SSA Model 2 memorandum. Available online at http://www.ssa.gov/OACT/solvency/PresComm_20020131.html.

deficit by 0.2 percent. Therefore the net effect of all changes to the conventional Social Security benefits is 1.87 percent of payroll.

3. Worker Contributions to New Accounts

Like Ferrara-Ryan, Model 2 provides that all workers over 55 in the year immediately following enactment will pay into and receive benefits under the current system for the rest of their lives. Each younger worker may elect to redirect 4 percent of earnings to a personal account, up to a limit of \$1,000, indexed to wage inflation. Thus, workers making \$50,000 of wage income may contribute a maximum 2 percent of earnings. Workers making \$75,000 may contribute 1.33 percent of earnings. The SSA estimates that the average contribution to personal accounts will be 2.4 percent of earnings.

4. Investments

A central authority similar to the Federal Employee Thrift Savings Plan would manage the accounts, with two tiers of investment choices. The first tier would consist of several broad index funds and diversified funds investing in equities and corporate and government bonds. The second tier would be available only after the program was in place for several years and to participants who have accumulated an unspecified threshold amount in their accounts.⁹⁵ The second tier would offer a range of investment options from approved private investment firms. The worker could select the firm and the investment option but the accounts would still be centrally managed.

Participation in the personal account program is voluntary. Participation should be high because *expected* benefits with accounts are higher than the traditional benefits (as modified by the plan) that would otherwise be paid. Details not specified in the plan description may operate to add an element of risk that could cause some workers not to elect personal accounts. For discussion purposes, we will assume that the plan has been structured to eliminate risk, specifically, that the benefit of participating in accounts (computed using a market interest rate) offsets the reduction of traditional benefits (computed using a below-market interest rate).

Computing the reduction of traditional benefits from the redirected contributions is complicated.⁹⁶ It does, however, yield a simple and useful rule of thumb: If the personal

⁹⁵ This amount is not specified either in the Commission Report or in the SSA Model 2 memorandum, but in other personal account plans the amount ranges from \$2,500 to \$10,000.

⁹⁶ First, a hypothetical account is computed with contributions to the hypothetical account equal to actual contributions to the personal account. These contributions are “invested” in a fund with an “offset yield rate” equal to one percentage point below the Treasury securities rate. Second, at retirement the hypothetical account balance is used to compute an inflation-indexed life annuity. Third, the monthly annuity payments are subtracted from Social Security benefits that would have been paid if the worker had not redirected contributions to a private account. This figure is the “net traditional benefit” from the Trust Fund. Total benefits equal net traditional benefit payments plus payments from personal accounts.

Under the SSA’s assumption, the offset yield rate can be specified as (a) 1 percent below the Treasury securities rate; or (b) 2 percent above the inflation rate. (Because the assumed inflation-adjusted rate of return on Treasury securities is 3 percent, it makes no difference to the calculation.) But it would make a difference to investor. As noted in the text, “1 percent below the Treasury securities rate” virtually guarantees that private

account can generate a rate of return (net of administrative expenses) greater than 1 percent below the rate of Treasury securities choosing the personal account option will clearly be to advantage of the worker. Near-universal participation seems likely because an investment solely in Treasury bills would be assured to exceed this performance standard, if (as would be extremely likely for such a simple portfolio) administrative expenses were below 1 percent.

5. Conventional and Personal Account Benefits

Because the Model 2 plan description is incomplete, some ambiguity exists about how plan benefits would be paid. One of the Commission's findings (p. 32) states that: "Social Security should be extended to include inheritable assets." However, the only form of retirement benefits described is life annuities which, by definition, terminate at death and are not inheritable.

Although the SSA analysis states that, upon retirement (and not before, except in the case of death) "the worker would have access to the account accumulation," its estimates assume that the entire account balance would be used to purchase life annuities at retirement ("total annuitization").

Another wrinkle in comparing Model 2 to other personal account proposals is that the SSA presents estimates for two types of life annuities: ((1) CPI-indexed life annuities; and (2) variable life annuities. CPI-indexed life annuities are analogous to current Social Security benefits: monthly payments determined at the time of retirement, continuing for the worker's lifetime, and adjusted only by changes in the consumer price index.

With variable life annuities, payments are adjusted by changes in market returns. This market adjustment makes variable life annuities much riskier than inflation-adjusted annuities. The reward for assuming this extra risk is a higher expected rate of return. The SSA opines that CPI-indexed annuities would be the more likely choice for retirees because payments would increase with the cost of living.

6. Account Impact on Trust Fund

According to the SSA, in the second year after implementing Model 2, benefits paid out would equal 10.56 percent of payroll, but contributions to the Trust Fund would be reduced by the 2.11 percent contributed to private accounts from the current level of 12.4 percent to 10.29 percent. In the long term, account contributions would average 2.4 percent, leaving 10 percent for the Trust Fund. Meanwhile, the cost of benefits would peak at just over 15 percent in 2029. The net cash flow into the Trust Fund does not become positive again until 2057. These financial flows are illustrated in **Exhibit 7.2**.

accounts would be a better deal. However, if inflation-adjusted Treasury yields fall and the private account is not invested in securities yielding decent returns, "2 percent above inflation" offers the potential of being worse off. The SSA concluded that this uncertainty would keep the most risk-averse workers away from the personal account option, and concluded that participation would be closer to 67 percent than 100 percent.

7. Build-Up of Personal Account Balances

Under Model 2, an average of 2.4 percent of payroll would be deposited in personal accounts. By 2028, the estimated personal account balances, after payouts to meet obligations, would reach approximately \$2.0 trillion (in inflation-adjusted 2003 dollars) and stay at approximately that same level through the remainder of the 75-year estimation period.⁹⁷

8. Non-Social Security Funds

At the end of 2000, the Social Security Trust Fund had \$1.05 trillion of assets. According to the intermediate projections of the 2001 Trustees Report, the present value of the annual deficits from through 2076 is \$4.29 trillion. Therefore, the present value of the flow of funds from the Treasury general fund necessary for Social Security to meet all its current obligations is \$3.24 trillion. This figure, Social Security's unfunded obligation, is the amount the fund would have needed at the beginning of 2001 to fund all its obligations over the subsequent 75 years.

Under the intermediate assumptions of the 2001 Trustees' Report, the Trust Fund continues to grow under current law through the end of 2003 and the plan takes effect at the beginning of 2004. Given its existing assets, the Trust Fund is able to meet obligations without assistance from the Treasury general fund through 2020. The present value of these cash flows from the general fund to the Trust Fund is \$3.32 trillion. Under this plan, the Trust Fund does not drop to zero, but has a present value of \$0.42 trillion at the end of 2076. Given that the Trust Fund has assets at the inception of the plan, and will have significant assets after 75 years, the cost to the Treasury general fund is \$2.69 trillion.

Therefore, with beginning assets of \$1.05 trillion (in 2001), if the federal government put \$2.69 trillion into the Trust Fund in 2004, Model 2 could, without further cost to the general Treasury account, achieve its personal account results. If Trust Fund balances are allowed to drop to zero by 2076, the net cost in present value would drop to \$2.27 trillion. These figures are summarized in **Exhibit 7.2**.

Exhibit 7.2
Financial Subsidies for Social Security:
Current Law (as Scheduled) and Model 2
(Dollar amounts in billions – based on 2001 Trustees' Report)

	Current Law (2001)	Model 2
(A) PV(End Assets)	\$ 0	\$423
(B) PV(net outflows)	\$4,289	\$3,316
(C) Begin Assets	\$1,049	\$1,049
(D) Unfunded Obligation [(A)+(B)-(C)]	\$3,240	\$2,690
Unfunded Obligation with zero ending assets [(D)-(A)]	\$3,240	\$2,267
Source: SSA Model 2 memorandum; 2001 Trustees' Report; and Calculations file for details.		

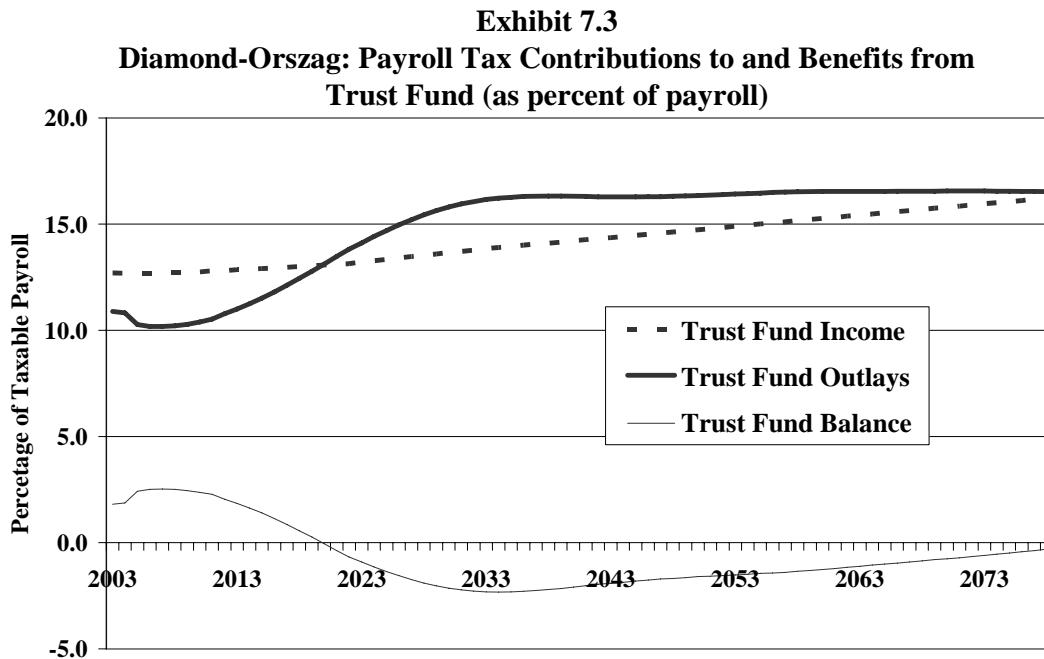
⁹⁷ From SSA Model 2 memorandum, Exhibit 2T-100p-a, assuming 100 percent participation.

D. RESTORING FINANCIAL BALANCE WITHOUT PERSONAL ACCOUNTS: DIAMOND-ORSZAG

Peter Diamond is an economics professor at the Massachusetts Institute of Technology and a leading academic authority on Social Security. Peter Orszag is an economist who served as Special Assistant to President Clinton and is now a senior fellow at the Brookings Institution. Their plan, described in their book *Saving Social Security: a Balanced Approach* (Brookings: 2004), was evaluated by the SSA.⁹⁸

The Diamond-Orszag plan does *not* include personal accounts. Freed of the need to finance a transition to personal accounts, the plan would finance approximately two-thirds of the current Social Security unfunded liability through payroll tax increases and the remaining one-third through benefit reductions targeted at higher-income workers.

Over the 75-year horizon the payroll tax rate gradually increases from its current level of 12.4 percent to 15.4 percent of payroll. Payments to beneficiaries would also gradually increase to 16.5 percent, which is less than under current law. The Trust Fund deficit peaks at approximately 2.3 percent of payroll in 2035 and eliminates the projected 1.92 percent. The Trust Fund's financial flows under Diamond-Orszag are illustrated in **Exhibit 7.3**.⁹⁹



Source: Table 1 of the 2003 SSA Diamond-Orszag memorandum is based on 2003 intermediate assumptions and a 2005 start date.

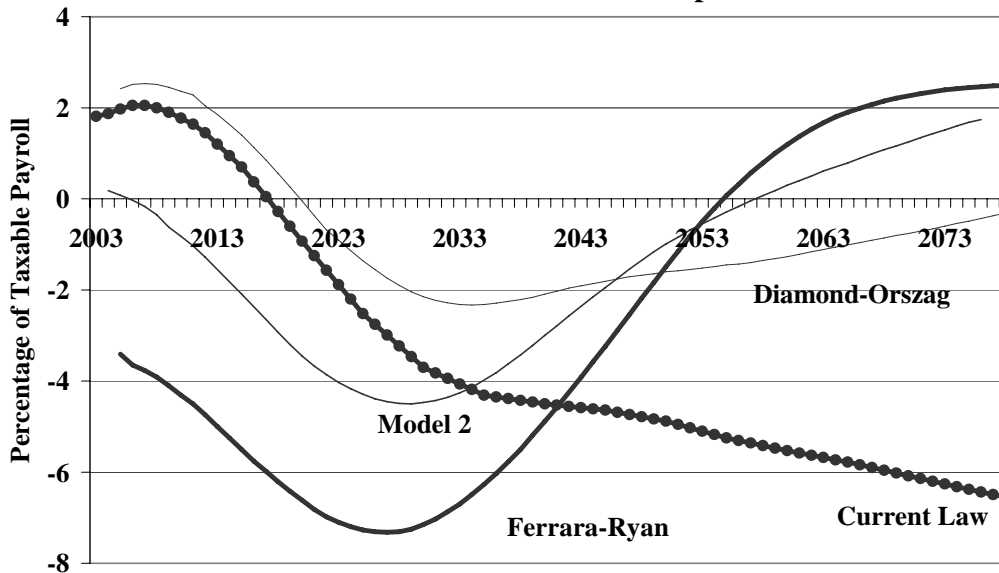
⁹⁸ Social Security Administration, Office of the Chief Actuary, *Estimate of Financial Effects for a Proposal to Restore Solvency to the Social Security Program*, October 8, 2003. Hereinafter, SSA Diamond-Orszag memorandum. Available online at http://www.ssa.gov/OACT/solvency/DiamondOrszag_20031008.html.

⁹⁹ Excel spreadsheets giving more detail on the [charts in chapter 7](#) are available online.

E. SUMMARY FINANCIAL COMPARISON OF THREE PLANS

Exhibit 7.4 compares the net Social Security Trust Fund deficit as a percentage of payroll under current law and each of the three plans described above. Under current law, Trust Fund finances progressively worsen. Ferrara-Ryan’s large personal account plan results initially in a large deficit which is eventually turned to a surplus. Model 2 is similar to Ferrara-Ryan, but smaller in magnitude. In contrast to the personal account plans, Diamond-Orszag instead initially increases surpluses and uses these surpluses to make up for deficits in later years.

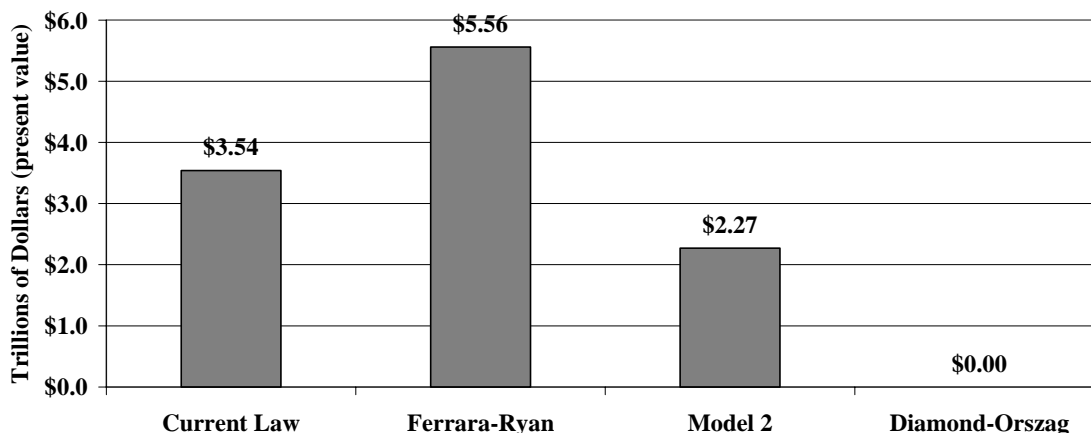
Exhibit 7.4
Comparison of Trust Fund Balances:
Current Law and Three Proposals



Sources: Exhibits 7.1, 7.2, and 7.3.

Exhibit 7.5 provides a compressed view of the same data. It shows that the current unfunded liability (present value) is \$3.54 trillion. By comparison, Ferrara-Ryan plan would require outside funding of \$5.56 trillion to provide basic benefits promised; and Model 2 would require \$2.27 trillion. Thus, Model 2 not only costs less than Ferrara-Ryan, but less than what is currently needed to fund the unreformed system. In contrast, Diamond-Orszag does not require any out-of-system funding, but relies on payroll tax increases and benefit cuts.

Exhibit 7.5
Outside Financing Required Under Current Law
and Three Proposals



Sources and notes: Current law projection is based on the 2003 Social Security Trustees' Report intermediate assumption.s For purposes of facilitating comparability, Ferrara-Ryan costs do *not* assume a payroll tax cut. With that cut, costs increase by \$668 billion. In addition, the Ferrara-Ryan and Model 2 totals do not include the cost of maintaining reserve balances.

F. SUMMARY OF FOUR OTHER PROPOSALS

1. DeMint Plan: Large Personal Accounts

Representative Jim DeMint, R-S.C., introduced the *Social Security Savings Act of 2003* (H.R. 3177), which is substantially similar to Ferrara-Ryan.¹⁰⁰ It use large personal accounts and requires large transfers from the Treasury general fund although on a smaller a scale. DeMint also does not cut traditional Social Security benefits other than redirecting payments to personal accounts.

Under DeMint, no one over age 55 when the plan is implemented would be affected. All other workers would be automatically enrolled and, though permitted to withdraw, few withdrawals, are expected. Between 3 to 8 percent of earnings currently would be redirected to personal accounts, ranging from 8 percent for the lowest income workers to 3 percent for workers with the maximum amount (\$90,000 in 2005). The SSA estimates that, on average, 5.1 percent of earnings will be directed to personal accounts.

¹⁰⁰ Cost estimates and a detailed description of the legislation have been published by the Social Security Administration, Office of the Chief Actuary, *Estimated Financial Effects of the "Social Security Savings Act of 2003,"*(September 26, 2003. Hereinafter, SSA DeMint memorandum. Available online at http://www.ssa.gov/OACT/solvency/DeMint_20030926.html.

Investment options include a “standard account” – one fund consisting of 65 percent indexed stock and 35 percent government bonds – or a “flexible account” – offering several broad-based funds similar to the Federal Employees’ Thrift Savings Plan, but entailing more risk.

Once the personal account balances reach \$5,000, two additional, broad index investments become available: (1) a small-capitalization equities fund; and (2) a mid-capitalization equities fund. Personal account holders who have reached this threshold may specify any desired allocation among the four available options.

Workers who maintain enrollment retain the standard portfolio allocation, and select full annuitization at retirement would be guaranteed to receive benefits at least as large as those scheduled under current law. Therefore, the SSA assumes participation will be universal.

Upon retirement, seniors could either (1) convert their entire account into fixed monthly payments; or (2) convert a portion of their account to ensure at least poverty level protection. Amounts not annuitized could be used for any purpose including transfers to heirs.

Other important details of the DeMint plan include:

- General Treasury fund transfers would be needed to keep the Trust Fund ratio from falling below 100 percent of annual expenditures starting 2021 and continuing through 2054.
- Total benefits would never drop below currently scheduled levels. During the first 40 years of the plan, there would be potential for small additional benefits above those strictly available from personal accounts.¹⁰¹
- All disbursements from personal accounts after retirement are treated like Social Security benefits for federal income tax purposes.
- The SSA estimates that, on average, benefits would increase to more than 130 percent of the current benefit level.¹⁰²

¹⁰¹ The offset for traditional benefit is equal to a factor (call it z) times personal account annuity assuming the personal account had been invested in the plan’s standard investment portfolio. The factor z would initially (for those attaining age 55 in 2005) be set at a level of 90 percent and gradually increase to 100 percent (for those attaining age 55 in 2045). Lower levels of z provide smaller offsets and therefore larger incentives for enrolling in the personal account option.

¹⁰² See Exhibit 7.7 below for more on benefit levels.

2. Graham Plan: Medium Personal Accounts

Senator Lindsey Graham, R-S.C., introduced the *Social Security Solvency and Modernization Act of 2003* (S. 1878), which is substantially similar to Model 2.¹⁰³ To help lower the costs of the overall plan, it includes reductions in scheduled benefits, like Model 2, largely by changing from wage-indexing to price-indexing.

Under this plan, current retirees, workers 55 and older, and persons with disabilities would remain in today's system with no changes to benefits, taxes or annual cost of living adjustments. Workers 54 and younger would have the option of setting aside 4 percent of wages in personal accounts, up to \$1,300 annually. The SSA estimates that average contributions will be 2.7 percent of payroll.

A distinguishing feature of the Graham proposal is that workers electing not to use personal accounts could get a guarantee to be paid currently scheduled benefits, but in return for paying an *additional* 2 percent tax on their wages, into Social Security. Over time, this additional tax would increase to cover future cost increases.

A third option would let workers opt out of both having a personal account and paying additional taxes, but they would have to accept significantly lower benefit levels. The SSA believes that all workers would choose personal accounts.

The Graham proposal also allows workers to make voluntary contributions to their personal accounts above and beyond the payroll tax redirections, with the government matching the contributions of lower income earners. The low-income subsidy would be drawn from the general fund.

Each worker's account would hold a default portfolio allocation of 60 percent stock and 40 percent long-term government bonds. Once an individual account balance reaches \$10,000 (wage-indexed after 2006), a second tier of investment options becomes available. Still managed centrally, the second tier would offer a range of funds provided by approved private investment firms. The worker would select an investment firm and among the funds offered by that firm.

At retirement, workers must purchase an annuity that at least equals 100 percent of the poverty level, but may use any balance above this minimum annuity at their discretion. Remaining personal account balances may also be passed on to their heirs.

Other features of the plan include:

- Traditional benefits for personal account holders would be reduced using a hypothetical annuity similar to that used under Model 2, although the benefit reduction would be larger than under Model 2.

¹⁰³ Cost estimates and a detailed description of the legislation have been published by the Social Security Administration, *Estimated OASDI Financial Effects of the "Social Security Solvency and Modernization Act of 2003,"* November 18, 2003. Hereinafter, SSA Graham memorandum. Available online at http://www.ssa.gov/OACT/solvency/NSmith_20030910.html.

- Benefits receive the same tax treatment as current Social Security benefits.
- Transfers from the general Treasury Fund equal to 1.25 percent of payroll would begin in 2006.
- Starting in 2006, tax revenues on Social Security benefits that currently go to the Medicare Trust Fund would be redirected to the Social Security Trust Fund.

3. Kolbe-Boyd Plan: Medium Personal Accounts

Representatives Jim Kolbe, R-Ariz., and Allen Boyd, D-Fla. (replacing Charles Stenholm, D-Tex.), introduced the *Bipartisan Retirement Security Act of 2004* (H.R. 3821).¹⁰⁴ Like Graham, the Kolbe-Boyd plan reduces the current Social Security actuarial deficit by reducing benefits through changing the method of adjusting for inflation and gradually increasing the normal retirement age. The plan would also increase the income cap on Social Security payroll taxes (\$90,000 in 2005)

Beginning in 2006, workers under age 55 could redirect 3 percent of their first \$10,000 of earnings and 2 percent of their remaining earnings below the wage cap to individual accounts. The SSA estimates that an average 2.3 percent of payroll would be contributed to accounts.

Workers could also make additional, voluntary, after-tax contributions of up to \$5,000 a year. Low-income workers would be eligible for government matching funds for the first \$500 of voluntary contributions from workers earning less than \$30,000 a year.

Accounts would be managed and invested, under each worker's direction, in a federally administered individual security account, similar to the Federal Employees' Thrift Savings Plan. Initially, investment options would include a stock index fund, a bond index fund and a Treasury securities index fund. Individual accounts could be invested in any combination of the three funds. When an individual's account balance reaches \$7,500 (for 2006), the individual would chose from a wider variety of investment options.

Transfers from the general Treasury fund must be made for every year Kolbe-Boyd is in effect. Additional general fund transfers would be required because the portion of revenue from the income taxation of Social Security currently directed to the Medicare Trust Fund would be redirected to the Social Security Trust fund.¹⁰⁵

¹⁰⁴ Cost estimates and a detailed description of the legislation have been published by the Social Security Administration, *Estimated OASDI Financial Effects of the "Bipartisan Retirement Security Act,"* February 11, 2004. Hereinafter SSA Kolbe-Boyd memorandum. Available online at http://www.ssa.gov/OACT/solvency/Kolbe_20040211.html.

¹⁰⁵ Shifting this revenue away from Medicare to the Social Security Trust Fund would exacerbate the financial problems of the Medicare Trust Fund.

4. Smith Plan: Medium Personal Accounts

Representative Nick Smith, R-Mich., introduced the *Social Security Solvency Act of 2003* (H.R. 3055),¹⁰⁶ which would permit workers to elect to redirect 2.5 percent of payroll to personal accounts in 2005-25, and 2.75 percent in 2026-2038. After 2038, the Smith plan would allow the contribution amount to increase by the maximum amount that would still allow the Trust Fund to cover annual program costs and maintain a minimal contingency reserve. The SSA projects that the contribution rate would increase from 2.75 percent of payroll in 2038 to 8 percent in 2068, remaining at the level in future years.

Participating workers' redirected payroll taxes would be invested in a default portfolio of 60 percent common stock and 40 percent corporate bonds. Other investment options would be available with stock-to-bond ratios of 40/60 and 80/20.

Once an account balance reaches \$2,500, the worker would have the option of investing in a broad range of mutual funds approved by the Treasury Secretary which, according to the SSA description of the plan, must replicate a broad-based index of securities and "not to involve high risks to the investor."

In addition, certain low-income earners who elect personal accounts could receive an additional subsidy of up to \$300 credited to their personal accounts.

At retirement, each worker must purchase a CPI-indexed life annuity that will, in combination with remaining Social Security benefits, at least meet 100 percent of the poverty level. Any remaining balances may be used either to purchase additional life annuities or make scheduled periodic payments, but they may not be distributed in a lump sum.

The proposal does not allow for distributions from personal accounts in the event of disability. If the worker dies before retirement, the personal account assets go to the worker's estate.

Several provisions of this proposal call for additional specified or conditional transfers between the general Treasury fund and the Social Security Trust Funds. The bulk of these transfers would occur from 2007 through 2013.

Other details include:

- Traditional benefits for personal account holders would be reduced using a hypothetical annuity similar to that used under Model 2, but the benefit reduction would be larger.
- Newly hired state and local government employees would be included in Social Security.
- Distributions from personal accounts would receive the same tax treatment as Social Security benefits.

¹⁰⁶ Cost estimates and a detailed description of the legislation have been published by the Social Security Administration, *Estimated OASDI Financial Effects of a Proposal Developed by Representative Nick Smith*, September 10, 2003. Hereinafter SSA Smith memorandum. Available online at http://www.ssa.gov/OACT/solvency/NSmith_20030910.html.

G. BENEFIT LEVELS AND RISK

Evaluating Social Security reform options cannot be limited to reviewing cost estimates. Higher cost programs may deliver more generous retirement benefits that justify the higher cost. However, benefit levels for personal account proposals are difficult to compute and assumption sensitive. Although the SSA has produced comprehensive cost statistic on each plan, it offers few estimates of benefit levels.

1. Annual Benefit Levels for Model 2

The most notable exception is the SSA's exhaustive work on Model 2, including estimates of annual benefit levels (a combination of reduced traditional benefits and monthly distributions from personal accounts). Those estimates are summarized in **Exhibit 7.6**.

At least four features of **Exhibit 7.6** deserve careful attention. First, the choice of a comparison standard affects how results are interpreted. Proposal estimates may be compared to: (1) benefits scheduled under current law; (2) benefits affordable¹⁰⁷ under current law; and (3) current benefit levels. Whether or not benefits are "cut" under Model 2 depends on the standard of comparison.

For example, projections for 2052 would give a medium earner investing in a fixed annuity estimated annual benefits of \$18,300, which is lower than scheduled benefits of \$19,536, but higher than affordable benefits \$14,148 and current benefit levels of \$12,624 (in 2000).

Second, when compared to current law, the relative benefit of Model 2 is greater for lower earners than higher earners. In 2052, low-income earners would receive benefits that are 106 percent of scheduled, 147 percent of affordable, and 165 percent of 2000 benefits, while high-income earners only receive 89 percent, 122 percent, and 140 percent, respectively. This pattern is true for every scenario under Model 2, irrespective of the chosen "current law" baseline.

Third, benefit levels vary with retired workers' choice of payout options. The estimates in the table assume full annuitization of balances accumulated during work years (and therefore, no bequest of accumulated private account balances). Under the plan, workers *may* choose an annuitization option with lower annual benefits, and allowing for the bequest of other funds accumulated in personal accounts.

Fourth, benefit levels vary with assumptions about risk and return. A fixed annuity mimics annuitization of current Social Security benefits, in which rates are set at retirement. This is a guaranteed rate and is, therefore, significantly lower. With a variable annuity, the investor assumes a greater risk, thus, the rate of return is expected to be larger. This market risk does not currently exist under current Social Security.

¹⁰⁷ Under the 2001 Trustees' Report intermediate assumptions, the Trust Fund could afford full scheduled benefits in 2032. However, under these assumptions, the system is projected to be 27.6 percent under-funded in 2052 and 33.0 percent under-funded in 2075.

Exhibit 7.6
Projected Annual Benefits Under Current Law and Under Model 2

	-----Variable Annuity-----			-----Fixed Annuity-----		
	Low Earnings	Medium Earnings	High Earnings	Low Earnings	Medium Earnings	High Earnings
2032						
Model 2	\$11,160	\$15,444	\$19,680	\$10,728	\$14,772	\$19,008
Current Law-Scheduled	\$9,756	\$16,116	\$21,288	\$9,756	\$16,116	\$21,288
Current Law-Affordable	\$9,756	\$16,116	\$21,288	\$9,756	\$16,116	\$21,288
2001 Benefit	\$7,644	\$12,624	\$16,392	\$7,644	\$12,624	\$16,392
Model 2 Scheduled	114%	96%	92%	110%	92%	89%
Model 2 Affordable	114%	96%	92%	110%	92%	89%
Model 2 2001 Benefit	146%	122%	120%	140%	117%	116%
2052						
Model 2	\$13,608	\$20,016	\$24,684	\$12,600	\$18,300	\$22,884
Current Law-Scheduled	\$11,832	\$19,536	\$25,812	\$11,832	\$19,536	\$25,812
Current Law-Affordable	\$8,568	\$14,148	\$18,696	\$8,568	\$14,148	\$18,696
2001 Benefit	\$7,644	\$12,624	\$16,392	\$7,644	\$12,624	\$16,392
Model 2 Scheduled	115%	102%	96%	106%	94%	89%
Model 2 Affordable	159%	141%	132%	147%	129%	122%
Model 2 2001 Benefit	178%	159%	151%	165%	145%	140%
2072						
Model 2	\$14,484	\$21,528	\$26,292	\$13,224	\$19,380	\$24,036
Current Law-Scheduled	\$14,722	\$24,384	\$32,220	\$14,722	\$24,384	\$32,220
Current Law-Affordable	\$9,900	\$16,343	\$21,594	\$9,900	\$16,343	\$21,594
2001 Benefit	\$7,644	\$12,624	\$16,392	\$7,644	\$12,624	\$16,392
Model 2 Scheduled	92%	82%	77%	86%	75%	71%
Model 2 Affordable	137%	122%	114%	127%	112%	106%
Model 2 2001 Benefit	178%	159%	151%	165%	145%	140%
Sources: President's Commission to Strengthen Social Security, <i>Strengthening Social Security and Creating Personal Wealth for All Americans</i> , Final Report, December 21, 2001, Appendix, pp. x-xi.						
Notes: All the results control for inflation by reporting in constant 2001 dollars. These projections assume workers invest in a portfolio composed of 50 percent equity and 50 percent bonds that earns an annual rate of return (net of administrative expenses) of 4.6 percent annually.						

It is important to note that differences between rates of return on a fixed and variable annuity only reflect differences in returns over the life of the annuity – between retirement and death. For the effect of variations in returns earned on personal accounts over the work life accumulation, see **Exhibit 7.7**, which shows adjustment factors that can be applied to the figures in **Exhibit 7.6**.

Exhibit 7.6 shows show annual benefits under SSA's medium-yield assumptions that result in a net yield, after inflation and administrative expense, of 4.6 percent. If high yield assumptions are used, with a net yield of 4.92 percent, benefits would be 9 percent higher than shown in **Exhibit 7.7**. As a third option, low yield assumptions that result in a net yield of 2.7 percent result in benefits 38 percent lower than those shown in **Exhibit 7.6**.

Exhibit 7.7
Variation in Benefits Due to Differences in Expected Returns: Model 2

SSA Assumption about Personal Account Portfolio	Net Yield	Adjustment Factor to Medium Yield Benefits
“Low Yield” – 100% Government Bonds	2.70%	0.62
“Medium Yield” – 50% Equity, 30% Corporate Bonds, 20% Government Bonds	4.60%	1.00
“High Yield” – 60% Equity, 24% Corporate Bonds, 16% Government Bonds	4.92%	1.09
Source: SSA Model 2 memorandum assumes equity earns 6.5 percent annually (adjusted for inflation); corporate bonds earn 3.5 percent; and Treasury bonds earn 3.0 percent. Annual administrative expenses are assumed to equal 0.3 percent of assets. Similar figures for other personal account plans are reported in Exhibit 7.9 .		

To summarize, under reasonable “middle-of-the-road” assumptions, Model 2 can be expected to provide lower monthly benefits relative to levels scheduled under current law. On the other hand, Model 2 is also likely to provide greater benefits than those available currently and than those affordable if the Trust Fund is not provided with new sources of finance.

2. Benefit Levels of Other Plans

The SSA benefit analyses of other plans are far less extensive. However, overall benefit levels can be ascertained by combining estimates of total personal account distributions and total payments from the Trust Fund. **Exhibit 7.8** compares combined personal account and Trust Fund benefits under various plans with benefits under current law (both scheduled and affordable).

The table shows that large personal account plans (like Ferrara-Ryan and DeMint) are able (under SSA’s assumption) to pay more benefits than scheduled, while mid-sized plans (like Model 2, Graham, Kolbe-Boyd, and Smith) are not. Diamond-Orszag also delivers smaller benefits than scheduled under current law.

Under the 2003 Trustees’ Report intermediate assumptions, after 2037 affordable benefit payments drop precipitously relative to scheduled payments. With the lower affordability standard, almost all plans can provide greater benefits than under current law.

Exhibit 7.8
Total Benefits as a Percentage of Current Law Scheduled and
Affordable Benefits Under Various Reform Plans

<i>Plan Benefits as percentage of Scheduled Current-Law Benefits:</i>							
	Model 2	Ferrara-Ryan	Diamond-Orszag	DeMint	Graham	Kolbe-Boyd	Smith
2032	94%	>101%	94%	101%	93%	85%	79%
2052	88%	>114%	89%	114%	87%	86%	70%
2072	82%	>131%	85%	131%	83%	89%	72%
<i>Plan Benefits as percentage of Affordable Current-Law Benefits:</i>							
	Model 2	Ferrara-Ryan	Diamond-Orszag	DeMint	Graham	Kolbe-Boyd	Smith
2032	94%	>101%	94%	101%	93%	85%	79%
2052	120%	>161%	123%	161%	120%	119%	97%
2072	119%	>197%	124%	197%	121%	130%	105%
<p>Sources: All figures are based on data are from SSA memoranda. For Model 2, data are from Tables 2T-100p-a and 2T-100p; for DeMint, data are from Tables 1 and 1d; for Diamond-Orszag, data are from Table 1; for Graham, data are from Tables 1 and 1a; for Kolbe-Boyd, data are from Tables 1 and 1a; and for Smith, data are from Table 3a and 3b.</p> <p>Current-law scheduled and affordable benefits are from the 2003 Trustees' Report in all cases, except for Model 2 where current-law benefits are from the 2001 Trustees' Report.</p> <p>Notes: The SSA did not publish benefit levels for Ferrara-Ryan, but given the plan's characteristics, benefits must be at least as large as those for DeMint.</p>							

3. Variation in Benefits Due to Difference in Yield

Varying the assumptions about yields earned by personal accounts can make a large difference in benefit levels. **Exhibit 7.9** and **Exhibit 7.7** present SSA estimates of the effect of different rates of return. For Ferrara-Ryan plan, the SSA assumed that account balances would earn a net rate of return of 5.2 percent after inflation. If instead, accounts only yielded 2.75 percent, benefits would be cut in nearly in half.

For DeMint, the SSA assumed account balances would earn 5.03 percent after inflation. If the assumed yield increased by 1 percent, benefits would increase by 29 percent in 2054. If the yield decreased by 1 percent, benefits would be reduced by 22 percent.

These calculations demonstrate that (1) personal account plan benefits are highly sensitive to changes in yield rates; and (3) individuals would be subject to significant markets risks not present under the current system.¹⁰⁸

¹⁰⁸ Because the current system is only partially funded, it is subject to the risk that projected future deficits will result in reduced benefits.

Exhibit 7.9
Variation in Benefits Due to Differences in Expected Returns:
Other Personal Account Plans

<i>Ferrara-Ryan plan:</i>				
Year / Net Yield	5.20%	2.75%		
2054	1.00	0.57		
2077	1.00	0.55		
<i>DeMint plan:</i>				
Year / Net Yield	5.03%	2.75%	4.03%	6.03%
2054	1.00	0.58	0.78	1.29
<i>Smith plan:</i>				
Year / Net Yield	5.00%	2.70%	5.30%	
2054	1.00	0.67	1.06	
2076	1.00	0.64	1.07	
Sources: Figures are based on data are from SSA memoranda. For Ferrara-Ryan, Tables 1a and 2a, ratio of total personal account assets in each table. For DeMint, Table A3, ratio of accumulated assets in personal accounts under different assumptions for net yield. For Smith, Tables 3a and 3a, ratio of total personal account assets in each table. Similar figures for Model 2 are reported in Exhibit 7.7 .				

H. SUMMARY OF SEVEN PLANS

Exhibit 7.10 provides a summary of the major features of the seven plans reviewed in this chapter.

Exhibit 7.11 provides a detailed summary of the financial characteristics of the seven plans. Line 5 – showing the unfunded obligation of each plan assuming zero assets – presents the cost of each plan on a comparable basis. It shows that large account plans – like Ferrara-Ryan (\$5.6 trillion) and DeMint (\$4.6 trillion) – would require more out-of-system resources than would be required to eliminate the unfunded liability of current law (\$3.5 trillion). On the other hand, line 5 also shows that medium account plans – like Model 2 (\$2.3 trillion), Graham (\$1.7 trillion), Kolbe-Boyd (\$1.0 trillion), and Smith (\$0.6 trillion) – would require smaller inflows than would be required to eliminate the unfunded liability of current law.

**Exhibit 7.10
Major Features of Reform Proposals**

	Current Law (2003 Assumptions)¹	Ferrara- Ryan (w/o Payroll Tax Cut)¹	Model 2²	Diamond- Orszag³	DeMint⁴	Graham⁵	Kolbe-Boyd⁶	Smith⁷
General Features:								
Change in Structure of Traditional Benefits	-	No	Yes	Yes	No	Yes	Yes	Yes
Payroll Tax Increase	-	No	No	Yes	No	No	Yes	No
Personal Accounts	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Features of Personal Accounts:								
Annual Contributions (% of payroll)	-	10% of 1st \$10,000; 5% of other (6.4% avg)	4%, up to \$1,000	-	Sliding scale from 8% to 3% (5.1% avg)	4%, up to \$1,300	3% of 1st \$10,000; 2% of other	2.5% through 2025, 2.75% for 2025-2038
Investment—Individual accounts, centrally administered?	-	Yes		-	Yes	Yes	Yes	Yes
Minimum Distribution	-	Current law benefits		None specified	Poverty level	120 % of the poverty level	None specified	Poverty level

Sources and notes: SSA memoranda evaluating these proposals can be found at www.ssa.gov/OACT/solvency.

¹ SSA Ferrara memorandum.

² SSA Model 2 memorandum.

³ SSA Diamond-Orszag memorandum.

⁴ SSA DeMint memorandum.

⁵ SSA Graham memorandum.

^{5a} Table 1a of SSA Graham memorandum.

⁶ SSA Kolbe-Boyd memorandum.

⁷ SSA Smith memorandum.

Exhibit 7.11
Financial Comparison Summary of Reform Proposals

(Dollar figures in billions of 2003 constant dollars (CD); Model 2 in 2001 constant dollars (CD).)

	Current Law (2003 Assumptions)¹	Ferrara- Ryan (w/o Payroll Tax Cut)¹	Model 2²	Diamond- Orszag³	DeMint⁴	Graham⁵	Kolbe-Boyd⁶	Smith⁷
Computation of Unfunded Obligation:								
(A) PV(Ending Assets)	0	\$665	\$423	\$346	\$187	\$1,387	\$462	\$437
(B) PV(Net Outflows)	\$4,922	\$6,935	\$3,316	\$929	\$6,005	\$3,086	\$2,407	\$1,974
(C) Beginning Assets	\$1,378	\$1,378	\$1,049	\$1,378	\$1,378	\$1,378	\$1,378	\$1,378
Unfunded Obligation [= (A) + (B) – (C)]	\$3,544	\$6,222	\$2,690	- \$103	\$4,814	\$3,095	\$1,491	\$1,033
Unfunded Obligation Assuming Ending Assets of Zero	\$3,544	\$5,557	\$2,267	- \$449	\$4,627	\$1,708	\$1,029	\$596
Other Financial Information:								
CD (Personal Account End-of-Period Assets)	\$ -	\$ 71,158 ^{1a}	\$17,761 ^{2a}	\$ -	\$67,037 ^{4a}	\$ 31,511	\$ 19,257	\$ 59,626
PV (Personal Account End-of-Period Assets)	\$ -	\$ 7,752	\$1,935 ^{2a}	\$ -	\$7,303	\$ 3,433 ^{5a}	\$ 2,098 ^{6a}	\$ 6,496 ^{7a}
CD (Trust Fund End-of-Period Assets)	\$ -	\$ 6,279 ^{1b}	\$3,883	\$3,178 ^{3a}	\$1,712 ^{4b}	\$ 12,731	\$ 4,241	\$ 4,011
Discount Factor (to convert end of period assets from constant dollar to present value) ⁸	0.109	0.109	0.109	0.109	0.109	0.109	0.109	0.109
SSA Assumed Net Yield Earned in Personal Accounts	-	5.2%	4.6%	-	5.025%	4.8%	4.45%	5.0%

Sources: SSA memoranda can be found at www.ssa.gov/OACT/solvency. See [Calculations file](#) for unfunded obligation calculations.

¹ SSA Ferrara memorandum.

^{1a} Table 1b of SSA Ferrara memorandum.

^{1b} Table 1a of SSA Ferrara memorandum.

² SSA Model 2 memorandum.

^{2a} Table 2T-100p-a of SSA Model 2 memorandum.

³ SSA Diamond-Orszag memorandum.

^{3a} Table 1a of SSA Diamond-Orszag memorandum.

⁴ SSA DeMint memorandum.

^{4a} Table 1b of SSA DeMint memorandum.

^{4b} Table 1a of SSA DeMint memorandum.

⁵ SSA Graham memorandum.

^{5a} Table 1a of SSA Graham memorandum.

⁶ SSA Kolbe-Boyd memorandum.

^{6a} Table 1b of SSA memorandum.

⁷ SSA Smith memorandum.

^{7a} Table 3a of SSA Smith memorandum.

⁸ SSA Model 2 memorandum.

⁹ Uses the SSA-assumed inflation-adjusted rate of return on government securities of 3 percent.

Note: This summary does not include all risks and costs associated with each approach. Please refer to the plan descriptions for more complete information.

Bibliography

- Aaron, H.J. (1982). *The Economic Effects of Social Security*. Washington, D.C.: The Brookings Institution.
- Aaron, H.J., Bosworth, B.P., and Burtless, G. (1989). *Can America Afford to Grow Old? Paying for Social Security*. Washington, D.C.: The Brookings Institution.
- Aaron, H.J., and Reischauer, R. D. (1999). *Countdown to Reform: The Great Social Security Debate*. Century Foundation.
- Aaronson, S.R., and Coronado, J.L. (2004, July). *Are Firms or Workers Behind the Shift Away from DB Pension Plans?* Department of Labor, Employee Benefits Security Administration.
- 1994-1995 Advisory Council on Social Security (1995). *Final Report of the Technical Panel on Assumptions and Methods*.
- 1994-1995 Advisory Council on Social Security (1995). *Final Report of the Technical Panel on Trends and Issues in Retirement Saving*.
- 2001 Advisory Council on Social Security (2001). *Social Security: Why Action Should Be Taken Soon*.
- American Institute of Certified Public Accountants (2001). AICPA Tax Policy Concept Statement No. 1: *Guiding Principles of Good Tax Policy: A Framework for Evaluating Tax Proposals*.
- Bennett, N.G., and Olshansky, S.J. (1996, December). Forecasting U.S. Age Structure and the Future of Social Security: The Impact of Adjustments to Official Mortality Schedules. *Population and Development Review* 22, 703-727.
- Biggs, A.G. (2002, August 22). *Perspectives on the President's Commission to Strengthen Social Security* (SSP No. 27). Cato Institute.
- Biggs, A.G. (2003, April 25). *Large Accounts and Small Cash Deficits: Increasing Personal Account Size Within a Fiscally Responsible Social Security Reform Framework*. (SSP No. 30). Cato Institute.
- Bosworth, B. (1996). Trust Fund Accumulation: How Much? How Managed? in P.A. Diamond, D.C. Lindeman and H. Young (Eds.), *Social Security: What Role for the Future?* (pp. 89-113). Washington, D.C.: National Academy of Social Insurance.
- Bosworth, B., Burtless, G., and Steuerle, C.E. (2001, September). Lifetime Earnings Patterns, the Distribution of Future Social Security Benefits, and the Impact of Pension Reform. *Social Security Bulletin*, Vol. 63, No. 4, 74-98.

- Brown, R.L., and Macunovich, D.J. (1996). Social Security and Retirees: Two Views of the Projections, in P.A. Diamond, D.C. Lindeman, and H. Young (Eds.), *Social Security: What Role for the Future?* (pp. 43-67). Washington, D.C.: National Academy of Social Insurance.
- Burtless, G., and Bosworth, B.P. (1997). *Privatizing Social Security: The Troubling Trade-Offs*. (Policy Brief No. 14). Washington, D.C.: The Brookings Institution.
- Bush, G.W. (2001, February 27). [Address of the President to the Joint Session of Congress, Washington, D.C.]
- Bush, G.W. (2001, May 2). *Executive Order 13210*. [Established President's Commission to Strengthen Social Security].
- Cogan, J.F., and Mitchell, O.S. (2002, September). *The Role of Economic Policy in Social Security Reform: Perspectives From the President's Commission*. (Working Paper 9166). National Bureau of Economic Research.
- Coile, C., and Gruber, J. (2000, April). Social Security Incentives for Retirement. (Working Paper 7651). National Bureau of Economic Research.
- Committee for Economic Development. (1997). *Fixing Social Security: A Statement by the Research and Policy Committee of the Committee for Economic Development*.
- Congressional Budget Office (2004, March). *Administrative Costs of Private Accounts in Social Security*.
- Council of Economic Advisors (2004). *2004 Economic Report of the President*. Washington D.C.: U.S. Government Printing Office.
- Council of Economic Advisors (1997). Economic Challenges of An Aging Population, in *1997 Economic Report of the President*. Washington D.C.: U.S. Government Printing Office.
- Cutler, D.M. (1996). Reexamining the Three-Legged Stool, in P.A. Diamond, D.C. Lindeman, and H. Young (Eds.) *Social Security: What Role for the Future?* (pp. 125-149). Washington, D.C.: National Academy of Social Insurance.
- Diamond, P.A. (1996). "The Future of Social Security." in P.A. Diamond, D.C. Lindeman, and H. Young (Eds.) *Social Security: What Role for the Future?* (pp. 225-233). Washington, D.C.: National Academy of Social Insurance.
- Diamond, P.A. (2000, December). What Stock Market Returns to Expect for the Future? *Social Security Bulletin*, Vol. 63, No. 2, 38-52.
- Diamond, P.A. (2002). *Social Security Reform – The Lindahl Lectures*. Oxford University Press USA.

- Diamond, P.A., and Orszag, P.R. (2002, June 18). *Reducing Benefits and Subsidizing Individual Accounts: An Analysis of the Plans Proposed by the President's Commission to Strengthen Social Security*. Center for Budget and Policy Priorities.
- Diamond, P.A., and Orszag, P.R. (2002, July 15). *A Response to the Executive Director of the President's Commission to Strengthen Social Security*. Center for Budget and Policy Priorities.
- Diamond, P.A., and Orszag, P.R. (2003). *Saving Social Security: A Balanced Approach*. Brookings Institution Press.
- Dickson, J. (1995, April 11). Analysis of Financial Conditions Surrounding Individual Accounts. [Presented to the 1994-1995 Advisory Council on Social Security, Washington, D.C.]
- Engelhardt, G.V., and Gruber, J. (2004, May). *Social Security and the Evolution of Elderly Poverty*. National Bureau of Economic Research, Working Paper 10466.
- Engen, E.M., and Gale, W.G. (1997). *Effects of Social Security on Private and National Saving*. Boston, Mass. Federal Reserve Bank of Boston, Conference on Social Security Reform.
- Favreault, M.M., Goldwyn, J.H., Smith, K.E., Thompson, L.H., Uccello, C.E., and Zedlewski, S.R. (2004, September 30). *Reform Model Two of the President's Commission to Strengthen Social Security: Distributional Outcomes Under Different Economic and Behavioral Assumptions*. Urban Institute.
- Feldstein, M.S. (1995). *Would Privatizing Social Security Raise Economic Welfare?* (Working Paper 5281). Cambridge, Mass.: National Bureau of Economic Research.
- Feldstein, M.S. (1997). *Transition to a Fully Funded Pension System: Five Economic Issues*. (Working Paper 6149). Cambridge, Mass. National Bureau of Economic Research.
- Feldstein, M.S. (2005, January). *Reducing the Risk of Investment-Based Social Security Reform*. (Working Paper 11084). Cambridge, Mass.: National Bureau of Economic Research.
- Feldstein, M.S., and Samwick, A.A. (1997). *The Economics of Prefunding Social Security and Medicare Benefits*. (Working Paper 6055). Cambridge, Mass.: National Bureau of Economic Research.
- Ferrara, P.J. (2004, June 15). [Testimony Before the Senate Aging Committee of Peter J. Ferrara (Senior Fellow, Institute for Policy Innovation; Director, Social Security Project, Club for Growth) on Progressive Personal Accounts for Social Security]
- Ferrara, P.J. (2004, November 10). *Personal Social Security Accounts That Work*. (Policy Report 185). Institute for Policy Innovation.
- General Accountability Office (1997, June). *Social Security Reform: Administrative Costs of Individual Accounts Depend on System Design*. (GAO/HEHS-99-131).

- Gokhale, J., and Lansing, K.J. (1996). *Social Security: Are We Getting Our Money's Worth?* [Economic Commentary]. Cleveland, Ohio: Federal Reserve Bank of Cleveland.
- Goss, S.C., Wade, A.H., and Schultz, J. (2004, August). *Unfunded Obligation and Transition Cost for the OASDI Program*. Social Security Administration, Office of the Chief Actuary.
- Greenspan, A. (1996, December 6). [Remarks on Social Security at the Union League of Philadelphia's Abraham Lincoln Award Ceremony, Philadelphia, Pa.]
- Gruber, J. (1997). *Social Security Programs and Retirement Around the World*. (Working Paper 6134). Cambridge, Mass.: National Bureau of Economic Research,
- Gustman, A.L., and Steinmeier, T.L. (1995). *Privatizing Social Security: First Round Effects of a Generic, Voluntary, Privatized U.S. Social Security System*. (Working Paper 5362). Cambridge, Mass.: National Bureau of Economic Research
- Holmer, M.R., and Bender, C. (1995). *Stochastic Simulations of Trust Fund Asset Allocation*. [Presented to the 1994-1995 Advisory Council on Social Security, Washington, D.C.]
- Hungerford, T.L., Rasette, M., Iams, H.M., and Koenig, M. (2003, January). Trends in the Economic Status of the Elderly, 1976-2000. *Social Security Bulletin*, Vol. 64, No. 3, 12-22.
- John, D.C. (2002, January 11). *Social Security Commission Report Shows Value and Feasibility of Individual Accounts*. (Backgrounder No. 1512) Heritage Foundation.
- John, D.C. (2004, March 2004). *Providing Social Security Benefits in the Future: A Review of the Social Security System and Plans to Reform It*. (Backgrounder No. 1735) Heritage Foundation.
- John, D.C. (2004, September 30). *The Top 10 Myths About Social Security Reform*. (Backgrounder No. 1802) Heritage Foundation.
- Kotlikoff, L.J. and Burns, S. (2004). *The Coming Generational Storm: What You Need to Know About America's Economic Future*. Boston, Mass.: The MIT Press.
- Korczyk, S.M. (2004, November). *Is Early Retirement Ending?* AARP Research Center, Public Policy Institute.
- Kritzer, B.E. (2000, December). Social Security Privatization in Latin America. *Social Security Bulletin*, Vol. 63, No. 2, 17-37.
- Kunkel, J.L. (1997). *Effective Annual Interest Rates Earned by the OASI and DI Trust Funds, 1940-1996*. [Actuarial Note]. Washington, D.C.: Office of the Chief Actuary, Social Security Administration.

- Lachance, M.E., and Mitchell, O.S. (2002, September). Understanding Individual Account Guarantees. (Working Paper 9195). National Bureau of Economic Research.
- Lamison-White, L. (1997). *Poverty in the United States*. (Series P60-198). Bureau of the Census, Current Population Reports.
- Lee, R.D., and Canter, L.R. (1992, September). Modeling and Forecasting U.S. Mortality. *Journal of the American Statistical Association* 87, 659-671.
- Lee, R.D., and Tuljapurkar, S. (1994, December). Stochastic Population Forecasts for the United States: Beyond High, Medium, and Low. *Journal of the American Statistical Association* 89, 1175-1189.
- Leimer, D.R. (1995, April). *A Guide to Social Security Money's Worth Issues*. (ORS Working Paper No. 67) Washington, D.C.: Division of Economic Research, Social Security Administration.
- Leimer, D.R. (1999, September). Lifetime Redistribution Under the Social Security Program: A Literature Synopsis. *Social Security Bulletin*, Vol. 62, No. 2, 43-51.
- Lesnoy, S.D., and Leimer, D.R. (1985, January). Social Security and Private Saving: Theory and Historical Evidence. *Social Security Bulletin* Vol. 48, No. 1, 14-30.
- Liu, L. (1999, June). Retirement Income Security In The United Kingdom. *Social Security Bulletin*, Vol. 62, No. 1, 23-46.
- Manchester, J. (1994, June 24). Prognoses for the Baby Boom Generation and Beyond. [Presented to the 1994-1995 Advisory Council on Social Security, Washington, D.C.]
- Mariger, R.P. (1997, November 24). Social Security Privatization: What It Can and Cannot Accomplish. Unpublished Paper, Board of Governors of the Federal Reserve System.
- Miron, J.A., and Weil, D.N. (1997, March) The Genesis and Evolution of Social Security. (Working Paper 5949). Cambridge, Mass.: National Bureau of Economic Research.
- Mitchell, O.S., and Zeldes, S.P. (1996, March). Social Security Privatization: A Structure of Analysis. (Working Paper 5512). Cambridge, Mass.: National Bureau of Economic Research.
- Mullins, D.W. (1996). [Comment on] Trust Fund Accumulation: How Much? How Managed? in P.A. Diamond, D.C. Lindeman, and H. Young (Eds.) *Social Security: What Role for the Future?* Washington, D.C.: National Academy of Social Insurance.
- Murthi, M., Orszag, J.M., and Orszag, P.R. (1999, March). *The Charge Ratio of Individual Accounts: Lessons From the U. K. Experience*. (Birbeck College Working Paper 99-2). University of London.

- Nichols, O.R., Clingman, M.D., and Glanz, M.P. (2001, June) *Internal Real Rates of Return Under the OASDI Program for Hypothetical Workers*. Social Security Administration, Office of the Chief Actuary.
- Olsen, K.A., and Hoffmeyer, D. (2002, September). Social Security's Special Minimum Benefit. *Social Security Bulletin*, Vol. 64, 1-15.
- Parisi, M., and Hollenbeck, S. (2004). Individual Income Tax Returns, 2002. *Statistics of Income Bulletin*, Fall, 8-45.
- Piñera, José. (1995, July-August). *The Success of Chili's Privatized Social Security Policy*. (Report No. 17). Cato Institute.
- President's Commission to Strengthen Social Security (2001). *Strengthening Social Security and Creating Personal Wealth for All Americans, Final Report*. Washington, D.C.
- Preston, S. H. (1995, February 11). Ethnic and Social Differences in Mortality and Life Expectancy. [Presented to the 1994-1995 Advisory Council on Social Security, Washington, D.C.]
- Quinn, J.F. (1997, July). Social Security Reform: Marginal or Fundamental Change. *Journal of the American Society of CLU and ChFC*, Vol. LI, 44-53.
- Quinn, J.F. (1999). Criteria for Social Security Reform, in O. Mitchell, R. Myers, and H. Young (Eds.) *Prospects for Social Security Reform*. Pittsburgh, Pa: University of Pennsylvania Press.
- Sandell, S.H. (1994, October). *Adequacy and Equity of Social Security*. [Presented to the 1994-1995 Advisory Council on Social Security, Washington, D.C.]
- Roosevelt, F.D. (1938, August 15). [Radio Address on the Third Anniversary of the Social Security.]
- Samuelson, P.A. (1958, December). An Exact Consumption-Loan Model of Interest With or Without the Social Contrivance of Money. *Journal of Political Economy* Vol. 66, 467-482.
- Sarney, M., and Preneta, A.M. (2002, September). The Canada Pension Plan's Experience With Investing Its Portfolio in Equities. *Social Security Bulletin*, Vol. 64, No. 2, 46-56.
- Smetters, K. (2003, July). Is the Social Security Trust Fund Worth Anything? (Working Paper 9845). National Bureau of Economic Research.
- Social Security Administration (2000, August). *A Brief History of Social Security*. SSA Publication 21-059.

- Social Security Administration (2004, March 23). *The 2004 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds.*
- Social Security Administration (2003, March 17). *The 2003 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds.*
- Social Security Administration (2001, March 19). *The 2001 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds.*
- Social Security Administration, Office of the Chief Actuary (2002, January 31). *Estimates of Financial Effects for Three Models Developed by the President's Commission to Strengthen Social Security.*
- Social Security Administration, Office of the Chief Actuary (2003, September 10). *Estimated Long-Range OASDI Financial Effects of a Proposal Developed by Representative Nick Smith.* [Legislation introduced as H.R. 3055 (108th Cong.) by Representative Nick Smith, R-Mich.]
- Social Security Administration, Office of the Chief Actuary (2003, September 26). *Estimated Financial Effects of the Social Security Savings Act of 2003.* [Legislation introduced as H.R. 3177 (108th Cong.) by Representative Jim DeMint, R-S.C.]
- Social Security Administration, Office of the Chief Actuary (2003, October 8). *Estimate of Financial Effects for a Proposal to Restore Solvency to the Social Security Program, a Proposal Developed by Peter Diamond and Peter Orszag.*
- Social Security Administration, Office of the Chief Actuary (2003, November 18). *Estimated OASDI Financial Effects of the Social Security Solvency and Modernization Act of 2003.* [Legislation introduced as S. 1878 (108th Cong.) by Senator Lindsey Graham, R-S.C.]
- Social Security Administration, Office of the Chief Actuary (2003, December 1). *Estimated Financial Effects of the Progressive Personal Account Plan, a Proposal Developed by Peter Ferrara.*
- Social Security Administration, Office of the Chief Actuary (2004, February 11). *Estimated OASDI Financial Effects of the Bipartisan Retirement Security Act.* [Legislation introduced as H.R. 3821 (108th Cong.) by Representatives Jim Kolbe, R-Ariz., and Allen Boyd, D-Fla. (replacing Charles Stenholm, D-Tex.)]
- Social Security Administration, Office of the Chief Actuary (2004, July 19). *Estimated Financial Effects of the Social Security Personal Savings and Prosperity Act of 2004.* [Legislation introduced as H.R. 4851 (108th Cong.) by Representative Paul Ryan, R-Wis.]

- Social Security Administration, Office of Policy (2002, February). *Income of the Population 55 and Older*.
- Social Security Administration, Office of Research, Evaluation and Statistics (1998, May). *Income of the Aged Chartbook, 1996*.
- Social Security Administration, Office of Research, Evaluation and Statistics (2003, May). *Income of the Aged Chartbook, 2001*.
- Steuerle, C.E., and Bakija, J.M. (1994). *Retooling Social Security for the 21st Century: Right and Wrong Answers to Reform*. Washington D.C.: The Urban Institute Press.
- Steuerle, C.E., and Carasso, A. (2003, March 31). *Lifetime Social Security and Medicare Benefits*. Straight Talk on Social Security and Retirement Policy Series, No. 36. Urban Institute.
- Steuerle, C.E., Carasso, A., and Cohen, L. (2004, May 1). *How Progressive Is Social Security and Why?* Straight Talk on Social Security and Retirement Policy Series, No. 37. Urban Institute.
- Sullivan, M.A. (1996, April 1). Social Security Taxes: A Room to Grow?. *Tax Notes* 71, 133-136.
- Tanner, M.D. (Ed.) (2004). *Social Security and Its Discontents: A Comprehensive Guide to Social Security Reform*. Cato Institute.
- Thompson, L.H. (1995). *Overview of Social Security Issues*. [Presented to the 1994-1995 Advisory Council on Social Security, Washington, D.C.]
- U.S. Census Bureau, Population Division, Populations Projection Branch (2004, March 18). *U.S. Interim Projections by Age, Sex, Race, and Hispanic Origin*.
- Varian, H.R. (1980, November). Redistributive Taxation as Social Insurance. *Journal of Public Economics*, Vol. 40, 49-68.
- Wentworth, S.G., and Pattison, D. (2003, January). Income Growth and Future Poverty Rates of the Aged. *Social Security Bulletin*, Vol. 64, No. 3, 23-37.
- “Your Stake in the Fight Over Social Security” (1981, September). *Consumer Reports*, 503-510.
- Zeldes, S.P. (1995, February). *Risk in Equity Investment*. [Presented to the 1994-1995 Advisory Council on Social Security, Washington, D.C.]