April 2012, Number 12-9

C E N T E R for RETIREMENT R E S E A R C H at boston college

# SOCIAL SECURITY'S FINANCIAL OUTLOOK: THE 2012 UPDATE IN PERSPECTIVE

By Alicia H. Munnell\*

## Introduction

The 2012 Trustees Report shows a significant increase in the program's 75-year deficit from 2.22 percent to 2.67 percent of taxable payroll and an advance in the date of trust fund exhaustion from 2036 to 2033. These changes reflect the slow recovery from the recession and rising disability rolls, among other factors. While the deficit is larger and the date of exhaustion nearer, the story remains the same. The program faces a manageable financing shortfall over the next 75 years, which should be addressed soon to restore confidence in the nation's major retirement program and to give people time to adjust to needed changes.

This *brief* updates the numbers and puts the current report in perspective. It also discusses two issues that Congress will be forced to consider – the projected exhaustion of the Disability Insurance Trust Fund in 2016 and the 2-percentage-point reduction in the employee's portion of the payroll tax.

# The 2012 Report

The Social Security actuaries project the system's financial outlook over the next 75 years under three assumptions – high cost, low cost, and intermediate. This *brief* focuses on the intermediate assumptions.

Since Social Security is financed primarily on a pay-as-you-go basis, demographic trends are very

important. And the demographics are changing dramatically; the baby boomers are retiring and the ratio of beneficiaries to workers is increasing sharply. This increase is not news, however; the actuaries have known the whereabouts of the baby boom (those born between 1946 and 1964) for a long time. Thus, the demographic shift described in the 2012 Trustees Report is virtually identical to that described in earlier ones. The ratio of beneficiaries to workers rises from 35 beneficiaries per 100 workers today to 52 in the future and causes the cost rate of the system to rise above the income rate (see Figure 1). Note that once





\* Alicia H. Munnell is director of the Center for Retirement Research at Boston College and the Peter F. Drucker Professor of Management Sciences at Boston College's Carroll School of Management. Zhenya Karamcheva provided excellent research assistance.

the cost rate increases, it stays high. This permanence has nothing to do with the baby boom generation, but rather with the substantial and seemingly permanent drop in the fertility rate from three to two that followed the baby boom births.

While the long-term demographic outlook for Social Security has not changed, the program's finances have been hurt by the recession and slow recovery. Until 2009, the cost rate was below the income rate and Social Security was running cash flow surpluses. These surpluses, which began in response to reforms enacted in 1983, were expected to continue for several more years. However, the recession-induced decline in payroll taxes and uptick in benefit claims caused the cost rate to exceed the income rate in 2010, and that pattern will continue (see Table 1).

TABLE 1. KEY DATES FOR SOCIAL SECURITY TRUST FUND

	Trustees Report					
Event —	2008	2009	2010	2011	2012	
First year outgo exceeds income excluding interest	2017	2016	2015	2010	2010	
First year outgo exceeds income including interest	2027	2024	2025	2023	2021	
Year trust fund assets are exhausted	2041	2037	2037	2036	2033	

Source: 2008-2012 Social Security Trustees Reports.

This shift from annual surplus to deficit means that Social Security is tapping the interest on trust fund assets to cover benefits sooner than anticipated. And in 2021, taxes and interest will fall short of annual benefit payments, so the government will be required to draw down trust fund assets to meet benefit commitments. The trust fund will be exhausted in 2033.

Once the trust fund is exhausted, some commentators describe Social Security as "bankrupt," leaving the impression that the program has no money at all. But payroll tax revenues continue rolling in. So the system will still have enough revenue to pay 75 percent of currently legislated benefits after exhaustion of reserves in 2033. Relying on only current tax revenues, however, means that in 2033 the replacement rate – benefits relative to pre-retirement earnings – for the typical worker would drop from 36 percent to 27 percent (see



Figure 2. Replacement Rate for the Medium Earner at Age 65 from Existing Tax Revenues, 2012-2086

V.C7.

Figure 2). (Note that the replacement rate for those claiming at age 65 is already scheduled to decline from 41 percent today to 36 percent because of the ongoing increase in the Full Retirement Age from 65 to 67 that was enacted in 1983.)

Over the next 75 years, Social Security's long-run deficit is projected to equal 2.67 percent of covered payroll earnings. That figure means that if payroll taxes were raised immediately by 2.67 percentage points – 1.34 percentage points each for the employee and the employer – the government would be able to pay the current package of benefits for everyone who reaches retirement age at least through 2086.

A lasting fix for Social Security would require additional changes. Solutions that focus just on the next 75 years sometimes involve the buildup of trust fund assets in the near term and the sale of those assets to pay benefits in the out years. Since the trust fund would have no further bonds to sell in the 76th year under this approach, the program would suddenly be short of money. Lasting solvency would require either a pay-as-you-go system with substantially higher payroll tax rates/lower benefits or the buildup of a trust fund larger than that required for 75-year solvency, the returns from which could cover some of the costs. Realistically, eliminating the 75-year shortfall should probably be viewed as the first step toward long-run solvency. Social Security's shortfall looks less daunting when outlays are shown as a percent of Gross Domestic Product (GDP). The cost of the program is projected to rise from 5.0 percent of GDP today to 6.1 percent of GDP in about 2050, where it remains even after the retirement of the baby boom because of the permanent decline in fertility rates discussed earlier (see Figure 3). The reason why costs as a percent of GDP more or less stabilize – while costs as a percent of taxable payroll keep rising – is that taxable payroll is projected to decline as a share of total compensation due to continued growth in fringe benefits.

FIGURE 3. SOCIAL SECURITY COSTS AS A PERCENT OF GROSS DOMESTIC PRODUCT AND TAXABLE PAYROLL, 1990-2086



Source: 2012 Social Security Trustees Report, Figures II.D4 and IV.B1.

Although the Trustees Report focuses on Social Security's financial shortfall as a percent of either taxable payroll or GDP, it also reports the financing shortfall in dollars. One measure of the shortfall – the present discounted value of the difference between projected revenues and expenditures over the next 75 years – amounts to \$8.6 trillion. Although this number appears very large, the economy will also be growing. So dividing this number – plus a one-year reserve cushion – by taxable payroll over the next 75 years brings us back to the 2.67 percent deficit discussed above. As a percent of GDP over the next 75 years, this deficit is 0.9 percent. Another measure of the financing shortfall is the present discounted value of the difference between revenues and benefits from now to infinity. This number amounts to \$20.5 trillion. Most analysts think that this number places too much weight on what may happen in the very distant and uncertain future. Nevertheless, dividing even this infinite shortfall by the present discounted value of taxable payroll over the infinite horizon produces a shortfall equal to 3.9 percent of taxable payroll (see Table 2).

#### TABLE 2. SOCIAL SECURITY'S FINANCING SHORTFALL

Period	I	As a percent of			
	Present value (trillions)	Taxable payroll	GDP		
2012-2086	\$8.6*	2.5%	0.9%		
2012-infinity	\$20.5	3.9	1.3		

\* The \$8.6 trillion is the difference between scheduled benefits and projected revenues; it excludes another \$501 billion required to bring the trust fund to 100 percent of annual cost by the end of the period. If this latter amount were included, the deficit relative to payrolls is 2.67 as reported earlier.

*Source: 2012 Social Security Trustees Report,* Tables IV.B5 and IV.B6.

# The 2012 Report in Perspective

Social Security's 75-year deficit is significantly higher than that reported a year ago: 2.67 percent versus 2.22 percent of taxable payroll. The increase is due to some adjustments in starting values due to the effects of the weak economy, some changes in ultimate assumptions, and the impact of moving the projection period forward by one year to include a year with a large deficit (see Table 3 on the next page). On the demographic side, the Trustees did not change any ultimate assumptions but, given that birth rates, legal immigration, and starting population all turned out to be lower than expected, they did update starting values and the way these starting values transitioned to the ultimate assumptions. On the economic front, the TABLE 3. REASONS FOR CHANGE IN ACTUARIAL BALANCEIN 2012

FIGURE 4. SOCIAL SECURITY'S 75-YEAR DEFICIT AS A PERCENT OF TAXABLE PAYROLL, 1983-2012

Item	Impact of deficit
Valuation period	-0.05
<ul> <li>Demographic data and assumptions</li> <li>Updated starting values (birth rates, immigration, and population lower th expected)</li> </ul>	-0.05 nan
<ul> <li>Economic data and assumptions</li> <li>Lowered ultimate economic assumption on annual rate of change in hours wo</li> <li>Updated starting values <ul> <li>Benefits higher than expected and payroll taxes lower</li> <li>Lower real interest rates for the first ten years</li> </ul> </li> </ul>	orked (-0.07) (-0.14)
<ul><li>Disability data and assumptions</li><li>Raised ultimate assumption of disabi incidence</li></ul>	-0.04 lity
Methods and programmatic data	-0.08
Total change in actuarial balance	-0.44

Source: 2012 Social Security Trustees Report, Table IV.B9.

Trustees lowered the ultimate assumption regarding the rate of change in hours worked to better reflect the habits of an aging workforce and a projected increase in the demand for leisure as living standards rise. They also updated starting values for benefit levels, which were higher than expected because of the 2011 cost-of-living adjustment, and for payroll taxes, which were lower than expected because of the weak economy. In terms of the disability program, the Trustees increased the ultimate assumption about the incidence of disability to better reflect the increasing trend of the last ten years. Finally, methodological changes also increased the actuarial deficit.

The recent shortfall is in sharp contrast to the projection of a 75-year balance in 1983 when Congress enacted the recommendations of the National Commission on Social Security Reform (often referred to as the Greenspan Commission). Almost immediately after the 1983 legislation, deficits appeared and increased markedly in the early 1990s (see Figure 4).

In the 1983 Report, the Trustees projected a 75-year actuarial surplus of 0.02 percent of taxable payroll; the 2012 Trustees project a deficit of 2.67 percent. Table 4 shows the reasons for this swing of 2.69 percent of tax-



able payroll. Leading the list is the impact of changing the valuation period. That is, the 1983 Report looked at the system's finances over the period 1983-2057; the projection period for the 2012 Report is 2012-2086. Each time the valuation period moves out one year, it picks up a year with a large negative balance.

TABLE 4. REASONS FOR CHANGE IN SOCIAL SECURITY'S75-YEAR DEFICIT AS A PERCENT OF PAYROLL, 1983-2012

Item	Change
Actuarial balance in 1983	0.02%
Changes in actuarial balance due to:	
Valuation period	-1.68
Economic data and assumptions	-0.75
Disability data and assumptions	-0.72
Methods and programmatic data	-0.19
Demographic data and assumptions	0.39
Legislation/regulation	0.30
Other factors*	-0.04
Total change in actuarial balance	-2.69
Actuarial balance in 2012	-2.67

\* Discrepancies due to rounding.

*Source:* Author's calculations based on earlier analysis by John Hambor, recreated and updated from 1983-2012 Social Security Trustees Reports.

A worsening of economic assumptions – primarily a decline in assumed productivity growth and the impact of the recent recession – have also contributed to the increase in the deficit. Another contributor to the increased actuarial deficit over the past 25 years has been persistent increases in disability rolls and the change in methods of analysis used by the actuaries. Offsetting the negative factors has been a reduction in the actuarial deficit due to changes in demographic assumptions – primarily higher mortality for women. Regulatory and legislative changes have also had a positive impact on the system finances.

One recent change, the 2010 health care reform (comprised of the Patient Protection and Affordable Care Act and the accompanying Health Care and Education Reconciliation Act), now faces an uncertain future. The main impact of this legislation on Social Security financing is through an expected increase in taxable wages as a number of provisions slow the rate of growth in the total cost of employer-sponsored group health insurance. When health care reform was passed in 2010, it was assumed to reduce Social Security's 75-year deficit by 0.14 percent. If the legislation, in whole or part, is ruled unconstitutional, some of the gains will have to be reversed.

### **Congressional Issues**

Two issues in the Trustees Report will require Congressional attention – the impending exhaustion of the Disability Insurance (DI) program and the scheduled expiration of the 2-percentage-point reduction in the employee's payroll tax in December 2012.

# Exhaustion of the Disability Insurance Program

Although the financial status of Social Security is often considered on a combined basis, the program actually consists of two trust funds – one for Old-Age and Survivors Insurance (OASI) and one for Disability Insurance (DI). Much of the acceleration in the exhaustion date for Social Security comes from the DI portion of the program. While the exhaustion date for the OASI program has moved up seven years since 2008, the DI date of exhaustion has moved up nine (see Table 5). The actuaries have anticipated for decades that the baby boomers would be progressing through their 50s and early 60s, a period of higher disability rates. But they did not foresee: 1) a significant increase in disability rates at young ages, and 2) the

# TABLE 5. KEY DATES FOR SOCIAL SECURITY TRUST FUNDS

Event	2008	2009	2010	2011	2012
Year OASI Trust Fund assets are exhausted	2042	2039	2040	2038	2035
Year DI Trust Fund assets are exhausted	2025	2020	2018	2018	2016

Source: 2008-2012 Social Security Trustees Reports.

impact of the economic recession. These factors have sharply increased outlays and accelerated the projected exhaustion date of the DI trust fund.

Under the intermediate projections, the DI trust fund will be exhausted in 2016. Since Social Security is precluded from spending money it does not have, it would have to cut benefits by about 21 percent to accord with DI payroll tax revenues. Congress is unlikely to allow such a circumstance to arise, however, and will likely reallocate some of the current OASI tax to the DI program.

#### Scheduled Expiration of the Payroll Tax Reduction

The Middle Class Tax Relief and Job Creation Act of 2012 extended the "temporary" 2-percentage-point reduction in the Social Security payroll tax rate for employees and the self employed through the end of 2012. The law provides that the Treasury make up for this reduction by reimbursing the trust funds with general revenues. Thus, the law has no financial implications for Social Security's short- or long-term outlook.

The question is whether Congress will let the tax reduction expire as planned. Politicians may fear that people will view expiration of the payroll tax relief as a tax increase and cut their spending. Although the economy has seen signs of revival, with some solid job growth and a healthy stock market, it is still far from full employment. A drop in consumer spending could slow progress toward full recovery.

On the other hand, a continuation of the payroll tax cut raises important political questions about the future of the Social Security program. Financing the program, even in part, through a general revenue transfer from the Treasury is a big departure from financing it by an earmarked tax equally split between employers and employees. It breaks the link between contributions and benefits. The departure also has the potential of making Social Security's financing shortfall look bigger. When the time comes to eliminate the long-run deficit in the program, Congress has to find money not only to cover the 2.67 percent of taxable payroll reported in the 2012 Trustees Report, but also to cover the 2-percent reduction in the payroll tax. Thus, Congress must balance the potential of endangering a burgeoning recovery versus political risks to the program.

# Conclusion

The 2012 Trustees Report confirms what has been evident for two decades – namely, Social Security is facing a long-term financing shortfall which now equals 2.67 percent of taxable payroll or 0.9 percent of GDP. To put the magnitude of the problem in perspective, defense outlays went down by 2.2 percent of GDP between 1990 and 2000 and up by 1.7 percent of GDP between 2000 and 2010.

While Social Security's shortfall is manageable, it is also real. The long-run deficit can be eliminated only by putting more money into the system or by cutting benefits. There is no silver bullet. Despite the political challenge, stabilizing the system's finances should be a high priority to restore confidence in our ability to manage our fiscal policy and to assure working Americans that they will receive the income they need in retirement.

## References

U.S. Social Security Administration. 1983-2012. The Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds. Washington, DC: U.S. Government Printing Office.

#### C E N T E R for RETIREMENT R E S E A R C H at boston college

#### About the Center

The Center for Retirement Research at Boston College was established in 1998 through a grant from the Social Security Administration. The Center's mission is to produce first-class research and educational tools and forge a strong link between the academic community and decision-makers in the public and private sectors around an issue of critical importance to the nation's future. To achieve this mission, the Center sponsors a wide variety of research projects, transmits new findings to a broad audience, trains new scholars, and broadens access to valuable data sources. Since its inception, the Center has established a reputation as an authoritative source of information on all major aspects of the retirement income debate.

#### Affiliated Institutions

The Brookings Institution Massachusetts Institute of Technology Syracuse University Urban Institute

#### Contact Information

Center for Retirement Research Boston College Hovey House 140 Commonwealth Avenue Chestnut Hill, MA 02467-3808 Phone: (617) 552-1762 Fax: (617) 552-0191 E-mail: crr@bc.edu Website: http://crr.bc.edu

The Center for Retirement Research thanks AARP, Citigroup, Invesco<sup>SM</sup>, LPL Financial, Mercer, MetLife, MFS Investment Management, National Reverse Mortgage Lenders Association, Prudential Financial, Putnam Investments, State Street, TIAA-CREF Institute, T. Rowe Price, and USAA for support of this project.

© 2012, by Trustees of Boston College, Center for Retirement Research. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that the authors are identified and full credit, including copyright notice, is given to Trustees of Boston College, Center for Retirement Research. The research reported herein was supported by the Center's Partnership Program. The findings and conclusions expressed are solely those of the authors and do not represent the views or policy of the partners or the Center for Retirement Research at Boston College.