

# Social Security's financial outlook: The 2011 update in perspective

Author: Alicia Haydock Munnell

Persistent link: <http://hdl.handle.net/2345/bc-ir:104200>

This work is posted on [eScholarship@BC](#),  
Boston College University Libraries.

---

Chestnut Hill, Mass.: Center for Retirement Research at Boston College, June 2011

These materials are made available for use in research, teaching and private study, pursuant to U.S. Copyright Law. The user must assume full responsibility for any use of the materials, including but not limited to, infringement of copyright and publication rights of reproduced materials. Any materials used for academic research or otherwise should be fully credited with the source. The publisher or original authors may retain copyright to the materials.

# SOCIAL SECURITY'S FINANCIAL OUTLOOK: THE 2011 UPDATE IN PERSPECTIVE

BY ALICIA H. MUNNELL\*

## Introduction

The 2011 Trustees Report for the Social Security system – unlike that for the Medicare program – contains no surprises, which may explain the relative lack of attention it has received in the press. Despite reduced revenues and increased benefit claims in the short run, the system continues to face a 75-year deficit equal to about 2 percent of taxable payroll. This *brief* puts the current report in perspective and discusses some recent developments – the restoration of the cost-of-living adjustment, the impending exhaustion of the Disability Insurance Trust Fund, and the impact of the 2-percentage-point reduction in the employee's portion of the payroll tax.

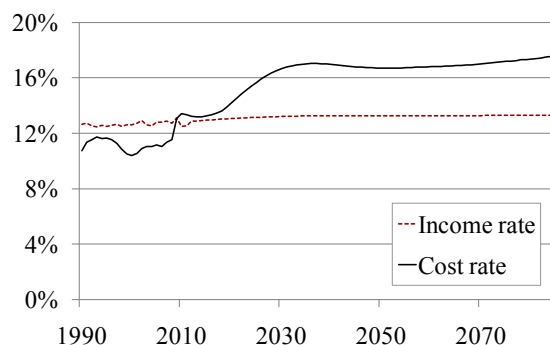
The good news is that, after a three-year gap, this year's report was signed by two public trustees – one recommended by the Republicans, one by the Democrats. These independent representatives were of one voice in urging policymakers to address Social Security's financing gap sooner rather than later.

## The 2011 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. The fact that baby boomers have begun to retire, however, is not news. These individuals were born between 1946 and 1964, so the actuaries have known of their whereabouts for a long time. As a result, the increasing ratio of beneficiaries to workers due to the aging of the population is virtually identical to that described in earlier Trustees Reports. This ratio rises from 34 beneficiaries per 100 workers today to 51 in the future and causes the cost rate of the system to rise above the income rate (see Figure 1). Note

FIGURE 1. PROJECTED SOCIAL SECURITY INCOME AND COST RATES, AS A PERCENT OF TAXABLE PAYROLL, 1990-2085



Source: 2011 Social Security Trustees Report, Table IV.B1.

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

that once 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 outlook for Social Security has not changed dramatically over the last five years, the short-term outlook has deteriorated. For the last two decades, the cost rate has been below the income rate and Social Security has run cash flow surpluses. These surpluses, which began in response to reforms enacted in 1983, were expected to continue for several more years. The recession-induced decline in payroll taxes and surge in benefit claims, however, caused the cost rate to exceed the income rate in 2010, and that pattern will continue (see Table 1). That shift means that Social Security is tapping the interest on trust fund assets to cover benefits sooner than anticipated.

TABLE 1. KEY DATES FOR SOCIAL SECURITY TRUST FUND

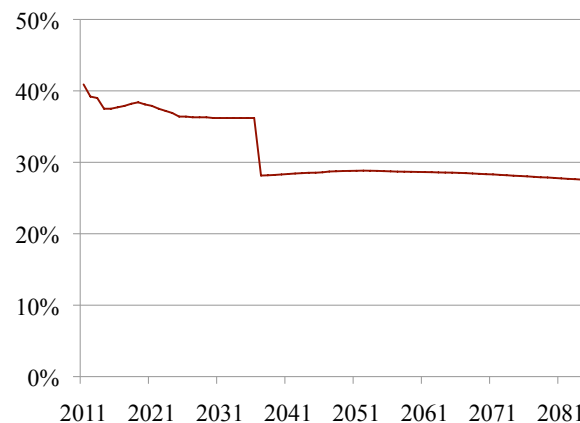
Event	Trustees Report				
	2007	2008	2009	2010	2011
First year outgo exceeds income excluding interest	2017	2017	2016	2015	2010
First year outgo exceeds income including interest	2027	2027	2024	2025	2023
Year trust fund assets are exhausted	2041	2041	2037	2037	2036

Source: 2007-2011 Social Security Trustees Reports.

And in 2023, 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 2036.

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 77 percent of currently legislated benefits after exhaustion of reserves in 2036. Relying on only current tax revenues, however, means that in 2036 the replacement rate – benefits relative to pre-retirement earnings –

FIGURE 2. REPLACEMENT RATE FOR THE MEDIUM EARNER AT AGE 65 FROM EXISTING TAX REVENUES, 2011-2085



Source: 2011 Social Security Trustees Report, Tables IV.B1 and VI.F10.

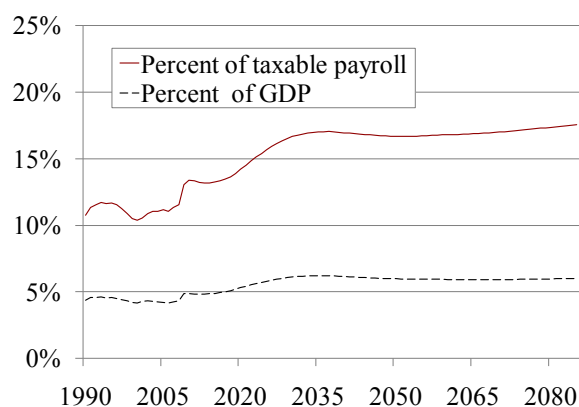
for the typical worker would drop from 36 percent to 28 percent (see Figure 2). (Note that the replacement rate for those claiming at age 65 is already scheduled to decline from 41 percent today to 36 percent because of the ongoing increase in the Full Retirement Age from 65 to 67 that was enacted in 1983.)

Over the next 75 years, Social Security’s long-run deficit is projected to equal 2.22 percent of covered payroll earnings. That figure means that if payroll taxes were raised immediately by 2.22 percentage points – 1.11 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 2085.

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 even less daunting when outlays are shown as a percent of Gross Domestic Product (GDP). The cost of the program is projected to rise from 4.8 percent of GDP today to 6.0 percent of GDP in about 2045, 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, 1990-2085



Source: 2011 Social Security Trustees Report, Figures II.D5 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 \$6.5 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 2.22 percent deficit discussed above. As a percent of GDP, this deficit is 0.7 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 \$17.9 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 3.6 percent of taxable payroll (see Table 2).

TABLE 2. SOCIAL SECURITY'S FINANCING SHORTFALL

Period	Present value (trillions)	As a percent of	
		Taxable payroll	GDP
2011-2085	\$6.5 *	2.1	0.7
2011-infinity	\$17.9	3.6	1.2

\* The \$6.5 trillion is the difference between scheduled benefits and projected revenues; it excludes another \$462 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 2.22 as reported earlier.

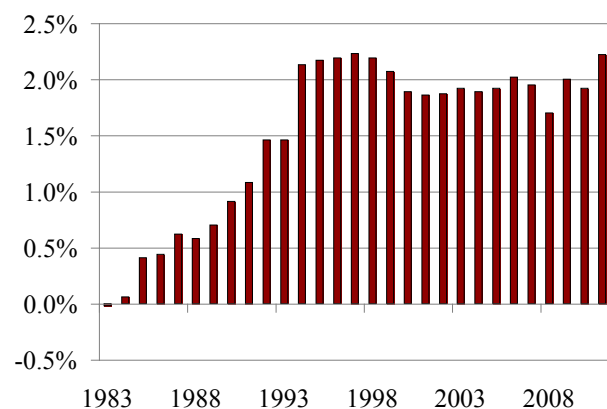
Source: 2011 Social Security Trustees Report, Tables IV.B5 and IV.B6.

## The 2011 Report in Perspective

Social Security's 75-year deficit is slightly higher than that reported a year ago: 2.22 percent versus 1.92 percent of taxable payroll. The increase is primarily due to three factors: 1) moving the projection period forward to include a year with a large deficit; 2) lowering the starting values and raising the projected near-term declines in death rates to reflect recent trends (but leaving the ultimate values unchanged); and lowering the starting value for taxable earnings to reflect the slower than anticipated recovery.

The recent shortfalls are 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 on the next page).

FIGURE 4. SOCIAL SECURITY'S 75-YEAR DEFICIT AS A PERCENT OF TAXABLE PAYROLL, 1983-2011



Source: 2011 Social Security Trustees Report, Table VI.B1.

In the 1983 Report, the Trustees projected a 75-year actuarial surplus of 0.02 percent of taxable payroll; the 2011 Trustees project a deficit of 2.22 percent. Table 3 shows the reasons for this swing of 2.24 percent of taxable 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 2011

TABLE 3. REASONS FOR CHANGE IN SOCIAL SECURITY'S 75-YEAR DEFICIT AS A PERCENT OF PAYROLL, 1983-2011

Item	Change
Actuarial balance in 1983	0.02
<b>Changes in actuarial balance due to:</b>	
Valuation period	-1.63
Disability data and assumptions	-0.68
Economic data and assumptions	-0.54
Projection methods and data	-0.11
Demographic data and assumptions	0.44
Legislation/regulation	0.30
Other factors*	-0.02
<b>Total change in actuarial balance</b>	<b>-2.24</b>
Actuarial balance in 2011	-2.22

\* Discrepancies due to rounding.

Source: Author's calculations based on earlier analysis by John Hambor, recreated and updated from Social Security Trustees Reports, 1983-2011.

Report is 2011-2085. Each time the valuation period moves out one year, it picks up a year with a large negative balance.

Persistent increases in disability rolls and the change in methods of analysis used by the actuaries also contributed to the increase in the deficit. Another contributor to the increased actuarial deficit over the past 25 years has been a worsening of economic assumptions – primarily a decline in assumed productivity growth and the impact of the recent recession. Offsetting the negative factors has been a reduction in the actuarial deficit due to changes in demographic assumptions – primarily higher mortality for women. Another factor with a positive impact on system finances has been the effect of regulation and legislation, such as the Affordable Care Act of 2010.

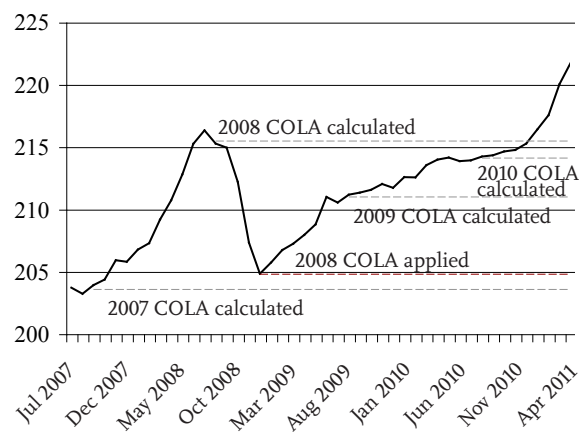
## Recent Developments

The Trustees Report also contains projections of the cost-of-living adjustment (COLA), assesses the health of the Disability Insurance (DI) and Old-Age and Survivors Insurance (OASI) programs separately, and discusses the impact of the 2-percentage-point reduction in the employee's payroll tax for 2011.

### COLA

After a two-year hiatus, the Trustees Report suggests that Social Security beneficiaries will receive a COLA for 2011. Social Security COLAs are calculated every October by comparing the third-quarter data of the Consumer Price Index for Urban Wage and Clerical Workers (CPI-W) with the previous year's numbers, and then the adjustment is made for the following December. In the case of the 2008 adjustment, rising energy prices called for a 5.8 percent COLA. However, before the 2008 COLA could even be paid, prices had dropped back below their 2008 third quarter levels (see Figure 5 on the next page). To make up for this "overpayment," Social Security suspended COLA payments until the CPI-W rose above the level of the third quarter of 2008. (Social Security never reduces benefits when prices decline.) On its current trajectory, the CPI-W in the third quarter of 2011 will well exceed its value in the third quarter of 2008, so COLA payments will resume. However, since the latest surge in prices is again primarily driven by high energy costs, which could prove temporary, the COLA roller coaster could be starting again.

FIGURE 5. CONSUMER PRICE INDEX (CPI-W), JULY 2007-APRIL 2011



Source: U.S. Bureau of Labor Statistics, *Consumer Price Index for Urban Wage Earners and Clerical Workers, 2007-2011*.

## 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 four years since 2007, the DI date of exhaustion has moved up eight (see Table 4). 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. The new developments contributing to the deterioration in the program's finances are an increase in case load due to: 1) higher than expected disability rates, particularly at young ages, and 2) the impact of the economic recession.

TABLE 4. KEY DATES FOR SOCIAL SECURITY TRUST FUNDS

Event	2007	2008	2009	2010	2011
Year OASI Trust Fund assets are exhausted	2042	2042	2039	2040	2038
Year DI Trust Fund assets are exhausted	2026	2025	2020	2018	2018

Source: 2007-2011 Social Security Trustees Reports.

Under the intermediate projections, the DI trust fund will be exhausted in 2018. Since Social Security is precluded from spending money it does not have, it would have to cut benefits by about 14 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.

## 2011 Employee Payroll Tax Reduction

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 reduced the Social Security payroll tax rate for 2011 by 2 percentage points for employees and the self employed. The law provides that the Treasury make up for this reduction by reimbursing trust funds with general revenues. Thus, the law has no financial implications for Social Security's short- or long-term outlook.

The question is how the payroll tax cut will be unwound. Experts argue that in an election year Congress may be reluctant to let payroll taxes revert to their former level. Politicians may fear that most people have not recognized the decline in their tax rate and will view the rebound as a tax increase. If the tax cut continues for a substantial period, however, it will fundamentally change the nature of the program, which historically has been financed by an earmarked tax level that is equally split between employers and employees.

## Conclusion

The 2011 Trustees Report confirms what has been evident for two decades – namely, Social Security is facing a long-term financing shortfall equal to about 2 percent of taxable payrolls or less than 1 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

- Goss, Stephen C. 2010. "The Future Financial Status of the Social Security Program." *Social Security Bulletin* 70(3).
- U.S. Bureau of Labor Statistics. 2011. *Consumer Price Index for Urban Wage Earners and Clerical Workers, 2007-2011*. Washington, DC. Available at: <http://www.bls.gov/cpi>.
- U.S. Social Security Administration. 1983-2011. *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.



CENTER for  
RETIREMENT  
RESEARCH  
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](mailto:crr@bc.edu)  
Website: <http://crr.bc.edu>

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

FOR MORE INFORMATION ON SOCIAL SECURITY, CHECK OUT:

the  
**SOCIAL SECURITY**  
**FIX-IT** book



[http://crr.bc.edu/special\\_projects/the\\_social\\_security\\_fix-it\\_book.html](http://crr.bc.edu/special_projects/the_social_security_fix-it_book.html)

© 2011, 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 author is 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 author and do not represent the views or policy of the partners or the Center for Retirement Research at Boston College.