Congressional **CBO** Budget Office
Summary

CBO's 2010 Long-Term Projections for Social Security: Additional Information

Social Security is the federal government's largest single program.[1] About 54 million people currently receive Social Security benefits. About 69 percent are retired workers, their spouses, and children and another 12 percent are survivors of deceased workers; all of those beneficiaries receive payments through Old-Age and Survivors Insurance (OASI). The other 19 percent are disabled workers or their spouses and children; they receive Disability Insurance (DI) benefits. Social Security's outlays in fiscal year 2010 totaled $706 billion, one-fifth of the federal budget; OASI payments accounted for 82 percent of those outlays and DI payments made up about 18 percent.

Social Security has two primary sources of tax revenues: payroll taxes and income taxes on benefits. In fiscal year 2010, roughly 97 percent of tax revenues dedicated to Social Security were collected from a payroll tax of 12.4 percent that is levied on earnings and split evenly by workers and their employers at 6.2 percent apiece. Self-employed workers pay the entire 12.4 percent tax on earnings themselves. The payroll tax applies only to taxable earnings—earnings up to a maximum annual amount ($106,800 in 2010). Some Social Security benefits also are subject to taxation: In fiscal year 2010, about 3 percent of Social Security's tax revenues came from the income taxes that higher-income beneficiaries paid on their Social Security benefits. Tax revenues credited to the program totaled $670 billion in that year.

1. For a description of the Social Security program, see Congressional Budget Office, *Social Security Policy Options* (July 2010), "An Overview of Social Security," pp.1–4. Social Security's financing and trust funds are discussed on pp. 3–5 of that study.

Revenues from taxes, along with intragovernmental interest payments, are credited to Social Security's two trust funds—one for OASI and one for DI—and the program's benefits and administrative costs are paid from those funds. Legally, the funds are separate, but they often are described collectively as the OASDI trust funds. In a given year, the sum of receipts to a fund along with the interest that is credited on previous balances, less spending for benefits and administrative costs, constitutes that fund's surplus or deficit.

In calendar year 2010, Social Security's outlays will exceed tax revenues (that is, the trust funds' receipts excluding interest) for the first time since the enactment of the Social Security Amendments of 1983. Over the next few years, the Congressional Budget Office (CBO) projects, the program's tax revenues will be approximately equal to its outlays. However, as more of the baby-boom generation (that is, people born between 1946 and 1964) enters retirement, outlays will increase relative to the size of the economy, whereas tax revenues will remain at an almost constant share of the economy. Starting in 2016, CBO projects, outlays as scheduled under current law will regularly exceed tax revenues.

CBO projects that the DI trust fund will be exhausted in 2018 and that the OASI trust fund will be exhausted in 2042. Once a trust fund's balance has fallen to zero and current revenues are insufficient to cover the benefits that are specified in law, a program will be unable to pay full benefits without changes in law. The DI trust fund came close to exhaustion in 1994, but that outcome was prevented by legislation that redirected revenue from the OASI trust fund to the DI trust fund. In part because of that experience, it is a common analytical convention to consider the DI and OASI trust funds as combined. CBO projects that, if legislation to shift resources from the OASI trust fund to the DI trust fund was enacted, the combined OASDI trust funds would be exhausted in 2039.

The amount of Social Security taxes paid by various groups of people differs, as do the benefits that different groups receive. For example, people with higher earnings pay more in Social Security payroll taxes than do lower-earning participants, and they also receive larger benefits (although not proportionately larger). Because of the progressive nature of Social Security's benefit formula, replacement rates—the amount of annual benefits as a percentage of annual lifetime earnings—are lower, on average, for workers who have had higher earnings. As another example, the amount of taxes paid and benefits received will be greater for people in later birth cohorts because they typically will have higher earnings over a lifetime, even after adjusting for inflation, CBO projects. However, replacement rates will be slightly lower, on average, for people in later birth groups because their full retirement age (the age at which they can receive unreduced retirement benefits) will be higher.

About This Analysis

CBO regularly prepares long-term projections of revenues and outlays for the Social Security program. The most recent projections, for the 75 years from 2010 through 2084, were published in Chapter 3 of *The Long-Term Budget Outlook* (June 2010, revised August 2010). This publication presents additional information about those projections.

The budget projections published in *The Long-Term Budget Outlook* involved two scenarios: The first, CBO's extended-baseline scenario, adheres closely to current law. For example, that scenario reflects the assumption that the tax cuts enacted in 2001 and 2003 expire as scheduled at the end of 2010. CBO also has developed an alternative fiscal scenario, which incorporates several changes to current law that are widely expected to occur or that would modify some provisions of law that might be difficult to sustain for a long period. Unless otherwise noted, the projections presented in this analysis are based on the assumptions of the extended-baseline scenario. In that scenario, income taxes, including the income taxes on Social Security benefits that are credited to the trust funds, are higher than they are in the alternative fiscal scenario.

Scheduled and Payable Benefits

CBO prepared two types of benefit projections. Benefits as calculated under the Social Security Act, regardless of the balances in the trust funds, are called *scheduled benefits*. The Social Security Administration has no legal authority to pay scheduled benefits if their amounts exceed the balances in the trust funds, however. Therefore, if the trust funds became exhausted, payments to current and new beneficiaries would need to be reduced to make the outlays from the funds equal the revenues flowing into the funds.[2] Benefits thus reduced are called *payable benefits*. In such a case, all receipts to the trust funds would be used and the trust fund balances would remain essentially at zero. When presenting projections of Social Security's finances, CBO generally focuses on scheduled benefits because, by definition, the system would be fully financed if only payable benefits are disbursed.

Quantifying Uncertainty

To quantify the amount of uncertainty in its Social Security projections, CBO created a distribution of outcomes from 500 simulations using its long-term model. In those simulations, the assumed values for most of the key demographic and economic factors that underlie the analysis—for example, fertility and mortality rates, interest rates, and the rate of growth of productivity—were varied on the basis of historical patterns of variation.[3] Several of the exhibits in this publication show the simulations' 80 percent range of uncertainty: That is, in 80 percent of the 500 simulations, the value in question fell within the range shown; in 10 percent of the simulations, the values were above that range; and in 10 percent they were below. Long-term projections are necessarily uncertain, and that uncertainty is illustrated in this publi-

2. See Kathleen Romig, *Social Security: What Would Happen If the Trust Funds Ran Out?* Report for Congress RL33514 (Congressional Research Service, updated August 20, 2009).

3. For more information, see Congressional Budget Office, *Quantifying Uncertainty in the Analysis of Long-Term Social Security Projections*, Background Paper (November 2005). The methodology used here differs slightly from the techniques described in that report.

cation; nevertheless, the general conclusions of this analysis hold true under a variety of assumptions.

System Finances

The first part of this publication examines Social Security's financial status from several vantage points. The fullest perspective is provided by projected streams of annual revenues and outlays. A more succinct analysis is given by measures that summarize the annual streams in a single number. The system's finances are also described by projecting what is called the trust fund ratio, the amount in the trust funds at the beginning of a year in proportion to the outlays in that year.

The Distribution of Benefits

In the second part, CBO examines the program's effects on people by grouping Social Security participants by various characteristics and presenting the average taxes and benefits for those groups. In its analysis, CBO divided people into groups by the decade in which they were born and by the quintile of their lifetime household earnings.[4] For example, one 10-year cohort consists of people born in the 1940s, and the top fifth of earners constitutes the highest earnings quintile. CBO's modeling approach produces estimates for individuals; household status is used only to place people into earnings groups.

In this part of the analysis, benefits are calculated net of income taxes paid on benefits by higher-income recipients and credited to the Social Security trust funds.[5] Median values are estimated for each group: Estimates for half of the people in the group are lower and estimates for half are higher.

Most retired and disabled workers receive Social Security benefits on the basis of their own work history. This publication first presents measures of those benefits that do not include benefits received by dependents or survivors who are entitled on the basis of another person's work history. Then, for a more comprehensive perspective on the distribution of Social Security benefits, this analysis presents measures of the total amount of Social Security payroll taxes that each participant pays over his or her lifetime as well as the total Social Security benefits—including payments received as a worker's dependent or survivors—that each receives over a lifetime.

Changes in CBO's Long-Term Social Security Projections Since 2009

The shortfalls for Social Security that CBO is currently projecting are larger than the shortfalls projected in *CBO's Long-Term Projections for Social Security: 2009 Update* (August 2009). The 75-year imbalance has increased from 1.3 percent to 1.6 percent of taxable payroll under the extended-baseline scenario and from 1.5 percent to 2.1 percent of taxable payroll under the alternative fiscal scenario. Those differences are attributable to changes both in projected outlays and in projected revenues. The 75-year cost rate—a measure of outlays—is about 2 percent higher under both scenarios because of near-term economic weakness, slightly lower projections of real (inflation-adjusted) growth in wages, and technical changes in modeling methods. The projected 75-year income rate—a measure of Social Security's revenues—is slightly higher than CBO estimated in 2009 under the extended-baseline scenario because income taxes on benefits are projected to be higher as a share of benefits. However, the income rate is about 1 percent lower than in 2009 under the alternative fiscal scenario because income taxes on benefits are projected to equal a smaller share of benefits.

Related CBO Analyses

Further information about Social Security and CBO's projections is available in other CBO publications:

- Various approaches to changing the program are presented in *Social Security Policy Options* (July 2010).

4. Each person who lives at least to age 45 is ranked by lifetime household earnings. Lifetime earnings for someone who is single in all years equals the present value of his or her real earnings over a lifetime. In any year a person is married, the earnings measure is a function of his or her earnings plus those of his or her spouse (adjusted for economies of scale in household consumption). A person's lifetime earnings consist of the present value of those annual amounts.

5. Benefits are not reduced by the portion of those income taxes that is credited to the Medicare Hospital Insurance trust fund.

- The current long-term projections are consistent with the 10-year baseline CBO published in *A Preliminary Analysis of the President's Budgetary Proposals for Fiscal Year 2011* (March 2010). (Data in that report and in *The Long-Term Budget Outlook* are generally presented for fiscal years; this analysis and *Social Security Policy Options* use calendar-year data.)

- The current projections update those in *CBO's Long-Term Projections for Social Security: 2009 Update.* Differences in the two sets of projections are the result of newly available programmatic and economic data, updated assumptions about future economic trends, and improvements in models. This current set of projections also incorporates the effects of the health care legislation passed in March 2010.[6]

6. The Patient Protection and Affordable Care Act (Public Law 111-148) and the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152).

- The methodology used to develop the projections in this publication is described in *CBO's Long-Term Model: An Overview,* a background paper published in June 2009.

- Appendix B of *The Long-Term Budget Outlook* offers an explanation of the values used for the demographic and economic variables underlying the projections. (As was the case for CBO's 2009 projections, the projections in this publication are based on the demographic assumptions of the 2009 report of the Social Security trustees.)[7]

- Numerous other aspects of the program are addressed in various publications available from CBO's Web site.

7. See Social Security Administration, *The 2009 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds* (May 12, 2009), www.ssa.gov/OACT/TR/2009/tr09.pdf.)