# The Long-Term Budget Outlook

**Percentage of Gross Domestic Product**



Actual | Projected

World War II

The Great
Depression

World War I

200

150

100

50

0

1900  1915  1930  1945  1960  1975  1990  2005  2020  2035
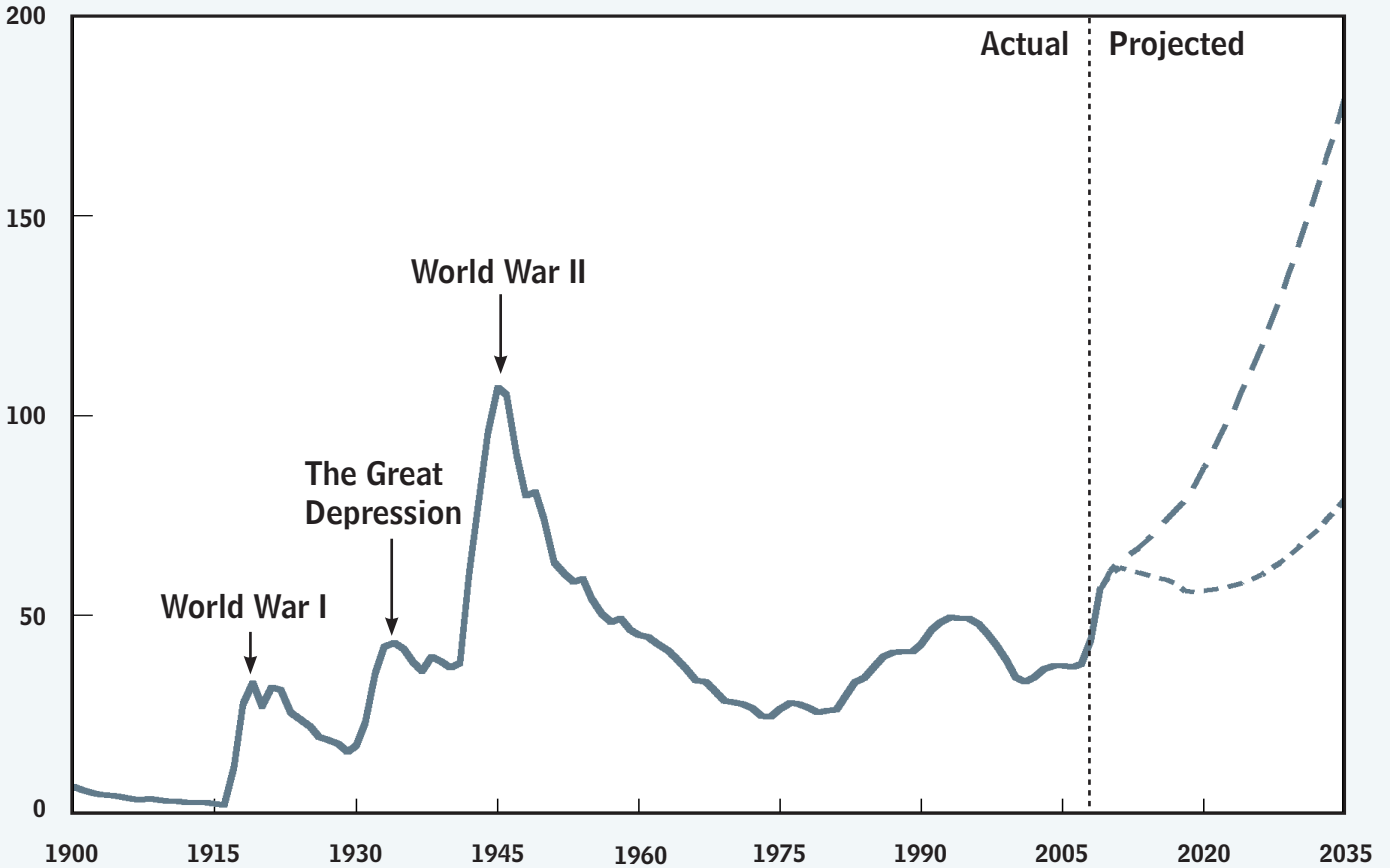
## Federal Debt Held by the Public
## Under CBO's Two Budget Scenarios

**JUNE 2009**

# CBO

# The Long-Term Budget Outlook

June 2009

The Congress of the United States ■ Congressional Budget Office

# Notes

Unless otherwise indicated, the years referred to in this report are calendar years.

Numbers in the text and tables may not add up to totals because of rounding.

Supplementary data underlying CBO's long-term budget scenarios are posted along with this report at CBO's Web site (www.cbo.gov).

The figure on the cover shows federal debt held by the public under the Congressional Budget Office's alternative fiscal scenario and its extended-baseline scenario. The former incorporates some changes in policy that are widely expected to occur and that policymakers have regularly made in the past; the latter adheres closely to current law, following the agency's baseline budget projections for the first 10 years and then extending the baseline concept for the rest of the projection period.
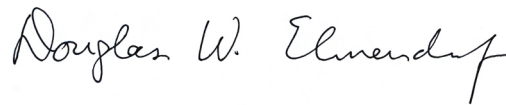
# Preface

**T**his Congressional Budget Office (CBO) report examines the pressures facing the federal budget over the coming decades by presenting the agency's projections of federal spending and revenues through 2080. Under current laws and policies, rapidly rising health care costs and an aging population will sharply increase federal spending for Medicare, Medicaid, and Social Security. Unless increases in revenues kept pace with escalating spending, or spending growth was sharply reduced, soaring federal debt would weigh heavily on economic output and incomes.

Noah Meyerson wrote Chapter 1, with contributions from Susan Yang and Benjamin Page. Julie Topoleski authored Chapter 2, Noah Meyerson wrote Chapter 3, and Sam Papenfuss authored Chapter 4. David Weiner wrote Chapter 5, with contributions from Kristy Piccinini. Charles Pineles-Mark, Michael Simpson, and Julie Topoleski developed the long-term simulations, and Robert Arnold, Marika Santoro, and Sven Sinclair prepared the macroeconomic simulations. David Weiner coordinated revenue simulations by Paul Burnham, Grant Driessen, Ed Harris, Athiphat Muthitacharoen, Larry Ozanne, and Joshua Shakin. The report was prepared under the supervision of Joyce Manchester. Many others at CBO provided helpful comments and assistance.

Christian Howlett, Leah Mazade, and Sherry Snyder edited and proofread the report, with assistance from Kate Kelly. Maureen Costantino prepared it for publication and designed the cover. Lenny Skutnik printed the initial copies, Linda Schimmel handled the print distribution, and Simone Thomas prepared the electronic version for CBO's Web site (www.cbo.gov).

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# Summary

Under current law, the federal budget is on an unsustainable path—meaning that federal debt will continue to grow much faster than the economy over the long run. Although great uncertainty surrounds long-term fiscal projections, rising costs for health care and the aging of the U.S. population will cause federal spending to increase rapidly under any plausible scenario for current law. Unless revenues increase just as rapidly, the rise in spending will produce growing budget deficits and accumulating debt. Keeping deficits and debt from reaching levels that would cause substantial harm to the economy would require increasing revenues significantly as a percentage of gross domestic product (GDP), decreasing projected spending sharply, or some combination of the two.

For decades, spending on the federal government's major health care programs, Medicare and Medicaid, has been growing faster than the economy (as has health care spending in the private sector). The Congressional Budget Office (CBO) projects that if current laws do not change, federal spending on Medicare and Medicaid combined will grow from roughly 5 percent of GDP today to almost 10 percent by 2035 (what this report describes as the intermediate term) and to more than 17 percent by 2080 (what this report considers to be the long term). That projection means that in 2080, without changes in policy, the federal government would be spending almost as much, as a share of the economy, on just its two major health care programs as it has spent on all of its programs and services in recent years. (For a description of CBO's projection methodology, see the June 2009 background paper *CBO's Long-Term Model: An Overview*.)

Under current law, spending on Social Security is also projected to rise over time as a share of GDP, albeit much less dramatically. CBO projects that Social Security spending will increase from less than 5 percent of GDP today to about 6 percent in 2035 and then roughly stabilize at that level through 2080. Under the assumptions used for CBO's long-term projections, government spending on activities other than Medicare, Medicaid, Social Security, and interest on federal debt—activities such as national defense and a wide variety of domestic programs—is projected to decline or stay roughly stable as a share of GDP in future decades.

Almost all of the projected growth in federal spending other than interest payments on the debt comes from growth in spending on the three largest entitlement programs—Medicare, Medicaid, and Social Security. By CBO's estimates, the increase in spending for Medicare and Medicaid as a share of GDP will account for 80 percent of spending increases for the three entitlement programs between now and 2035 and 90 percent of spending growth between now and 2080. Thus, reducing overall government spending relative to what would occur under current fiscal policy would require fundamental changes in the trajectory of federal health spending. Slowing the growth rate of outlays for Medicare and Medicaid is the central long-term challenge for federal fiscal policy.

Federal spending on Medicare, Medicaid, and Social Security will grow relative to the economy both because health care spending per beneficiary is projected to increase and because the population is aging. Spending on Medicare and Medicaid will be driven by both factors, while Social Security spending will rise because of the population's aging. Between now and 2035, aging is projected to make the larger contribution to the growth of spending for those three programs as a share of GDP. After 2035, continued increases in health care spending per beneficiary are projected to dominate the growth in spending for the three programs.

The current recession has little effect on long-term projections of noninterest spending and revenues. But CBO estimates that in fiscal years 2009 and 2010, the federal government will record its largest budget deficits as a share of GDP since shortly after World War II. As a result of those deficits, federal debt held by the public will soar from 41 percent of GDP at the end of fiscal year 2008 to 60 percent at the end of fiscal year 2010. Higher debt results in permanently higher spending to pay interest on that debt (unless the debt is later paid off). Federal interest payments already amount to more than 1 percent of GDP; unless current law changes, that share would rise to 2.5 percent by 2020.

CBO's long-term budget projections raise fundamental questions about economic sustainability. If outlays grew as projected and revenues did not rise at a corresponding rate, annual deficits would climb and federal debt would grow significantly. Large budget deficits would reduce national saving, leading to more borrowing from abroad and less domestic investment, which in turn would depress income growth in the United States. Over time, the accumulation of debt would seriously harm the economy. Alternatively, if spending grew as projected and taxes were raised in tandem, tax rates would have to reach levels never seen in the United States. High tax rates would slow the growth of the economy, making the spending burden harder to bear. Policymakers could mitigate the economic damage from rapidly rising debt by putting the nation on a sustainable fiscal course, which would require some combination of lower spending and higher revenues than the amounts now projected. Making such changes sooner rather than later would lessen the risks that current fiscal policy poses to the economy.

# The Federal Budget Outlook
# Over the Long Run

**A**ssessing the nation's fiscal condition requires not only considering the current economic and budgetary circumstances but also analyzing what might happen over the long term if current laws and policies remained in place. Toward that end, the Congressional Budget Office (CBO) has prepared budgetary projections through 2080 under two different sets of assumptions about federal laws and policies. Those projections indicate that, under either set of assumptions, federal debt will continue to grow much faster than the economy over the long run.

Although long-term budget projections are highly uncertain, under any plausible scenario rising costs for health care and the aging of the U.S. population will cause federal spending to increase rapidly. Unless revenues increase just as rapidly, the rise in spending will produce growing budget deficits and accumulating debt. To keep deficits and debt from reaching levels that could cause substantial harm to the economy, policymakers will need to increase revenues significantly as a percentage of gross domestic product (GDP), decrease projected spending sharply, or implement some combination of the two.

## Alternative Scenarios for the Long-Term Budget Outlook

Long-term projections rely on numerous assumptions about economic and fiscal factors, and many different assumptions are possible (see Appendix A). In this report, CBO presents two scenarios that are based on alternative assumptions about the federal budget over the long term (see Table 1-1):

■ The "extended-baseline scenario" adheres most closely to current law, following CBO's 10-year baseline budget projections for the next decade and then extending the baseline concept beyond that 10-year window.[1] The scenario's assumption of current law implies that

many policy adjustments that lawmakers have routinely made in the past will not occur.

■ The "alternative fiscal scenario" represents one interpretation of what it would mean to continue today's underlying fiscal policy. This scenario deviates from CBO's baseline even during the next 10 years because it incorporates some policy changes that are widely expected to occur and that policymakers have regularly made in the past. Different analysts might perceive the underlying intention of current policy differently, however, and other interpretations are possible.

CBO projects that under both scenarios, primary spending—all spending except interest payments on federal debt—would grow sharply in coming decades relative to its historical relationship to GDP. Those projections are consistent with CBO's 2007 long-term budget outlook (see Appendix B). Stimulus legislation and efforts to stabilize the financial markets will push primary spending up to 26 percent of GDP this fiscal year, the highest level since World War II; primary spending is projected to decline to 20 percent of GDP by fiscal year 2012.

Under the extended-baseline scenario, primary spending would edge down further as a share of GDP for several years, to 19 percent. It would then begin a long-term upward trajectory, reaching 24 percent of GDP in 2035 and 32 percent in 2080 (see Figure 1-1). Under the

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1. CBO's baseline is a benchmark for measuring the budgetary effects of proposed changes in federal revenues or spending. It comprises projections of budget authority, outlays, revenues, and the deficit or surplus calculated according to rules set forth in the Balanced Budget and Emergency Deficit Control Act of 1985. Those projections are not intended to be predictions of future budgetary outcomes; rather, they represent CBO's best judgment of how economic and other factors would affect federal revenues and spending if current laws and policies did not change.

**Table 1-1.**

# Assumptions About Federal Spending and Revenue Sources Underlying CBO's Long-Term Budget Scenarios

| | Extended-Baseline Scenario | Alternative Fiscal Scenario |
|---|---|---|
| | **Assumptions About Spending** | |
| Medicare | As scheduled under current law | Physician payment rates grow with the Medicare economic index (rather than at the lower growth rates scheduled under the sustainable growth rate mechanism) |
| Medicaid | As scheduled under current law | As scheduled under current law |
| Social Security | As scheduled under current law | As scheduled under current law |
| Other Spending Excluding Interest[a] | As projected in CBO's 10-year baseline through 2019, remaining thereafter at the projected 2019 level as a share of GDP | As projected in CBO's baseline through 2011, remaining thereafter at the projected 2009 level, minus stimulus and related spending, as a share of GDP |
| | **Assumptions About Revenue Sources** | |
| Individual Income Taxes | As scheduled under current law | Tax provisions in JGTRRA and EGTRRA are extended and AMT parameters are indexed for inflation after 2009 |
| Corporate Income Taxes | As scheduled under current law | As scheduled under current law |
| Payroll Taxes | As scheduled under current law | As scheduled under current law |
| Excise Taxes and Estate and Gift Taxes | As scheduled under current law | Constant as a share of GDP over the long term |
| Other Revenues | As scheduled under current law through 2019, remaining constant as a share of GDP thereafter | As scheduled under current law through 2019, remaining constant as a share of GDP thereafter |

Source:   Congressional Budget Office.

Notes:   The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period. The alternative fiscal scenario deviates from CBO's baseline projections, beginning in 2010, by incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

GDP = gross domestic product; JGTRRA = Jobs and Growth Tax Relief Reconciliation Act of 2003; EGTRRA = Economic Growth and Tax Relief Reconciliation Act of 2001; AMT = alternative minimum tax.

a.   Federal spending on the refundable portions of the earned income tax credit and the child tax credit is not held constant as a percentage of GDP but instead is modeled with the revenue portion of the scenarios.

alternative fiscal scenario, by comparison, primary spending would be about 2 percentage points higher as a share of GDP than in the extended-baseline scenario throughout the projection period (see Figure 1-2).

If spending policies did not change and outlays indeed grew to the projected levels relative to the size of the economy, maintaining a sustainable budget path would require a similar rise in federal taxation. The recession has temporarily depressed revenues to a projected level of 16

percent of GDP in this fiscal year. But even typical revenue levels would be too low to support projected spending. Over the past half-century, total federal revenues have averaged about 18 percent of GDP—well below the level of projected spending under either scenario.

Under the extended-baseline scenario, revenues would reach higher levels relative to the economy than ever recorded in the nation's history. That scenario assumes that reductions in tax rates enacted in 2001 and 2003

**Figure 1-1.**

## Federal Revenues and Noninterest Spending, by Category, Under CBO's Extended-Baseline Scenario
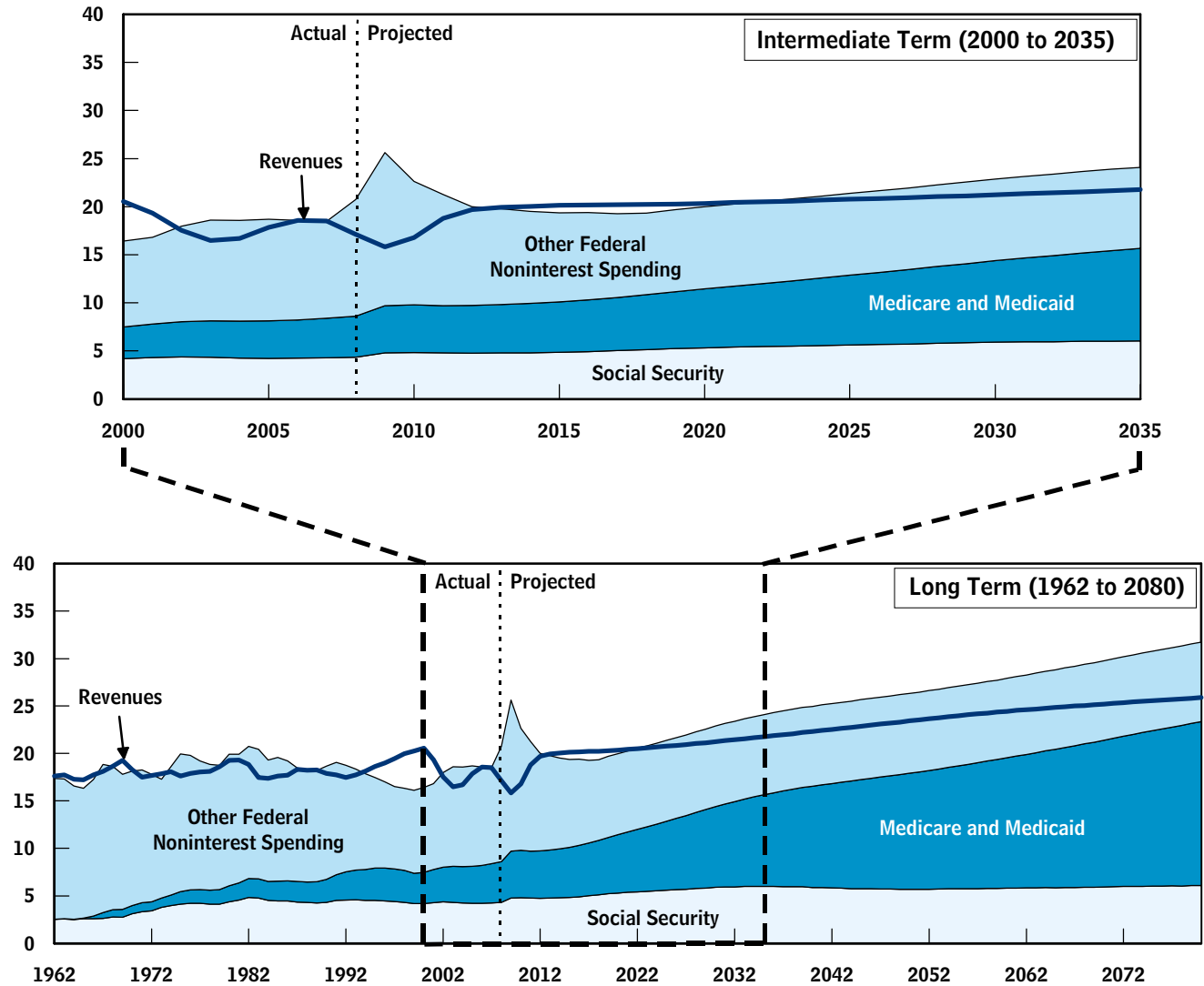
(Percentage of gross domestic product)



Source:    Congressional Budget Office.

Notes:  Spending in this figure excludes interest payments on the debt; hence, the gap between federal revenues and noninterest spending shown here does not equal the projected surplus or deficit.

The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period.

**Figure 1-2.**

# Federal Revenues and Noninterest Spending, by Category, Under CBO's Alternative Fiscal Scenario
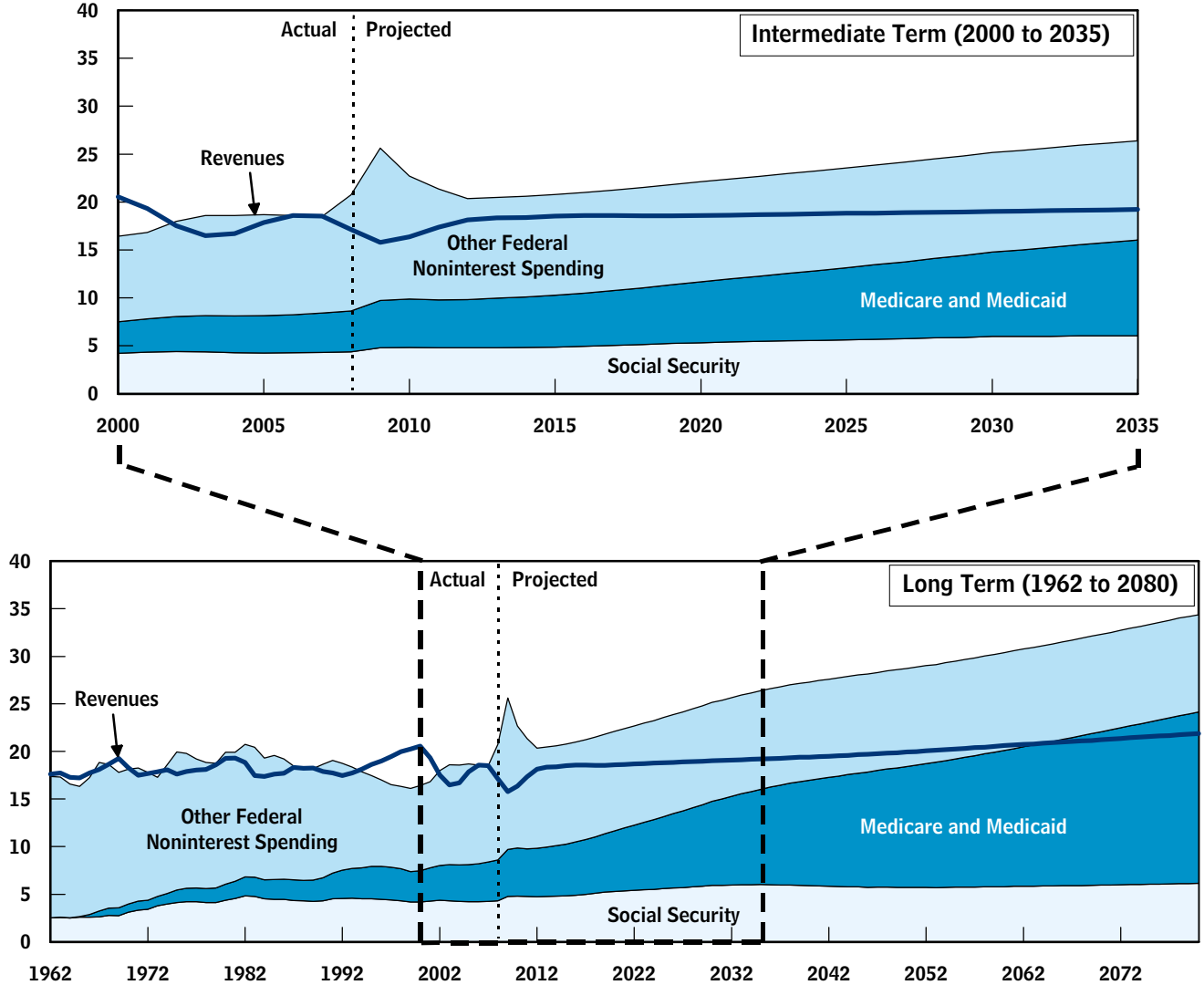
(Percentage of gross domestic product)



Source:   Congressional Budget Office.

Notes: Spending in this figure excludes interest payments on the debt; hence, the gap between federal revenues and noninterest spending shown here does not equal the projected surplus or deficit.

The alternative fiscal scenario deviates from CBO's baseline projections, beginning in 2010, by incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

**Figure 1-3.**

# Federal Debt Held by the Public Under CBO's Long-Term Budget Scenarios
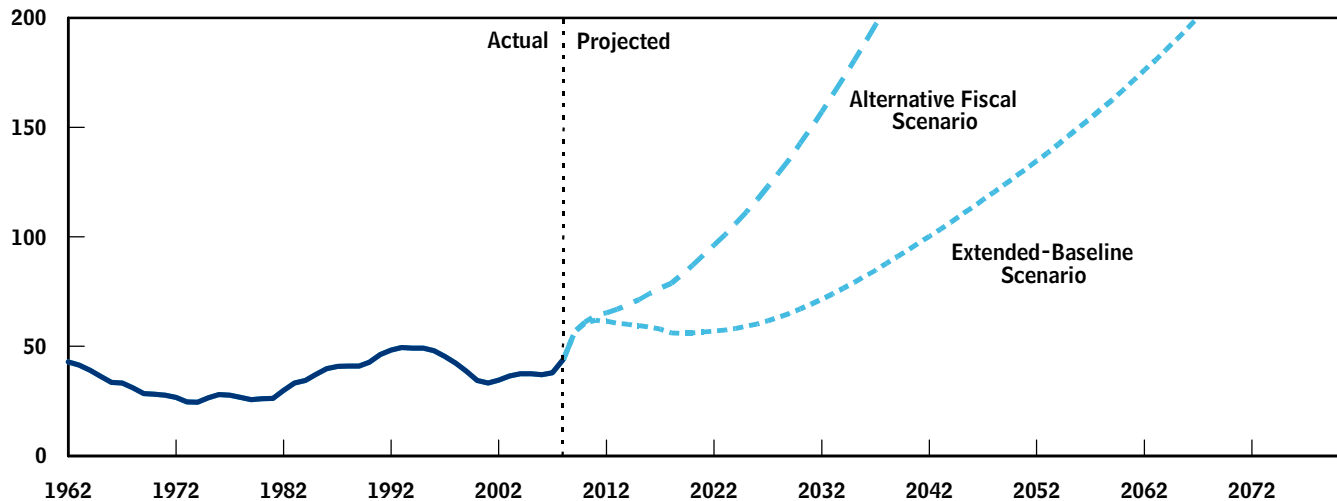
(Percentage of gross domestic product)



Source:    Congressional Budget Office.

Note:    The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period. The alternative fiscal scenario deviates from CBO's baseline projections, beginning in 2010, by incorporating some changes in policy that are widely expected to occur and that policy-makers have regularly made in the past.

will expire at the end of 2010 as scheduled under current law. It also assumes that the alternative minimum tax (AMT) will not be changed, and because its parameters are not indexed to inflation like most of the tax code, its reach would expand substantially over time.[2] In addition, ongoing increases in real (inflation-adjusted) income would push taxpayers into higher income tax brackets. For all of those reasons, the extended-baseline scenario implies that federal revenues will grow somewhat faster, on average, than the economy—increasing from 20 percent of GDP in fiscal year 2012 to 22 percent by 2035 and 26 percent by 2080. But even if revenues rose to those unprecedented levels, they would not be sufficient to keep the budget in balance over the long term in that scenario. Federal debt held by the public would stay near 60 percent of GDP during the coming decade but then would turn upward and reach 79 percent of GDP by 2035 (see Figure 1-3 and Table 1-2). In the absence of policy changes, by 2046 the ratio of debt to GDP would

be higher than the level that the United States experienced shortly after World War II.

Under the alternative fiscal scenario, by contrast, expiring tax provisions in the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) and the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA) would be extended, and the AMT would be indexed to inflation. As a result, revenues would grow only slightly faster than the economy, equaling 22 percent of GDP by 2080. Slowly growing revenues combined with sharply rising expenditures would create an explosive fiscal situation. Under the spending and revenue policies incorporated in this scenario, federal debt would surpass 100 percent of GDP in 2023 and exceed 200 percent of GDP by the late 2030s.

## Returning the Budget to a Sustainable Path

How much would policies have to change to avoid unsustainable increases in government debt? A useful answer comes from looking at the so-called fiscal gap. The gap measures the immediate change in spending or revenues that would be necessary to produce the same

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2.    The AMT is a parallel income tax system with fewer exemptions, deductions, and rates than the regular income tax. Households must calculate the amount of tax they owe under both the AMT and the regular income tax and pay the larger of the two amounts.

**Table 1-2.**

# Projected Federal Spending and Revenues Under CBO's Long-Term Budget Scenarios

(Percentage of gross domestic product)

| | 2009[a] | 2020 | 2035 | 2050 | 2080 |
|---|---|---|---|---|---|
| | **Extended-Baseline Scenario** | | | | |
| Primary Spending | | | | | |
| Social Security | 4.8 | 5.3 | 6.0 | 5.7 | 6.1 |
| Medicare[b] | 3.5 | 4.0 | 6.9 | 9.0 | 13.5 |
| Medicaid | 1.8 | 2.1 | 2.8 | 3.2 | 3.7 |
| Other noninterest spending | 16.0 | 8.6 | 8.5 | 8.4 | 8.4 |
| Subtotal, primary spending | 26.2 | 20.0 | 24.1 | 26.3 | 31.7 |
| Interest | 1.2 | 2.6 | 3.3 | 5.4 | 11.9 |
| Total Spending | 27.4 | 22.6 | 27.4 | 31.7 | 43.7 |
| Revenues | 15.5 | 20.3 | 21.8 | 23.4 | 25.9 |
| **Deficit (-) or Surplus** | | | | | |
| **Primary deficit or surplus** | **-10.7** | **0.4** | **-2.3** | **-2.9** | **-5.9** |
| **Total deficit** | **-11.9** | **-2.3** | **-5.6** | **-8.3** | **-17.8** |
| Debt Held by the Public | 55 | 56 | 79 | 128 [c] | 283 [c] |
| | **Alternative Fiscal Scenario** | | | | |
| Primary Spending | | | | | |
| Social Security | 4.8 | 5.3 | 6.0 | 5.7 | 6.2 |
| Medicare[b] | 3.5 | 4.3 | 7.2 | 9.5 | 14.3 |
| Medicaid | 1.8 | 2.1 | 2.8 | 3.2 | 3.7 |
| Other noninterest spending | 16.0 | 10.5 | 10.4 | 10.3 | 10.3 |
| Subtotal, primary spending | 26.2 | 22.1 | 26.4 | 28.7 | 34.4 |
| Interest | 1.2 | 3.9 | 7.5 | 13.5 | 30.3 |
| Total Spending | 27.4 | 26.0 | 33.9 | 42.2 | 64.7 |
| Revenues | 15.5 | 18.6 | 19.2 | 19.9 | 21.9 |
| **Deficit (-) or Surplus** | | | | | |
| **Primary deficit or surplus** | **-10.7** | **-3.5** | **-7.2** | **-8.8** | **-12.5** |
| **Total deficit** | **-11.9** | **-7.4** | **-14.6** | **-22.2** | **-42.8** |
| Debt Held by the Public | 55 | 87 | 181 [c] | 321 [c] | 716 [c] |

Source:   Congressional Budget Office.

Note:   The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period. The alternative fiscal scenario deviates from CBO's baseline projections, beginning in 2010, by incorporating some changes in policy that are widely expected to occur and that policy-makers have regularly made in the past.

a.   Data for 2009 are on a fiscal year basis; all other data are on a calendar year basis.

b.   Spending for Medicare is net of premiums and amounts paid by states from savings on Medicaid prescription drug costs.

c.   Such high levels of debt to GDP would have severe effects on the economy that are not illustrated here. For further discussion, see the section "The Economic Impact of Rising Federal Debt" in this chapter.

## Box 1-1.

# Calculating the Fiscal Gap

One way to gauge the federal government's financial status is to examine projections of annual revenues and spending. Another way is to look at present-value measures that summarize the government's expected long-term flows of revenues and spending in a single number. (A present-value calculation adjusts future payments for the time value of money to make them comparable with payments today.) The fiscal gap is a present-value measure of the nation's fiscal imbalance.

That imbalance reflects federal shortfalls over a given period. It represents the extent to which the government would need to immediately and permanently raise tax revenues, cut spending, or use some mix of both to make the government's debt the same size (relative to the size of the economy) at the end of that period as it was at the beginning.

The Congressional Budget Office (CBO) calculates the present value of a stream of future revenues by taking the revenues for each year, discounting each value to 2009 dollars, and then summing the resulting series. (CBO used a real [inflation-adjusted] discount rate based on the interest rate on debt held by the public. As explained in Appendix A, that rate is assumed to be 3.0 percent in the long term.) The same method is applied to the projected stream of outlays.[1] CBO also computes a present value for future gross domestic product (GDP) so it can calculate the present value of outlays and revenues as a share of the present value of GDP (see the table at the right).

### Federal Fiscal Imbalance Under CBO's Long-Term Budget Scenarios

(Percentage of gross domestic product)

| Projection Period | Revenues | Outlays | Fiscal Gap |
|---|---|---|---|
| | Extended-Baseline Scenario | | |
| 25 Years (2009–2033) | 21.6 | 23.7 | 2.1 |
| 50 Years (2009–2058) | 22.0 | 24.6 | 2.6 |
| 75 Years (2009–2083) | 22.7 | 25.9 | 3.2 |
| | Alternative Fiscal Scenario | | |
| 25 Years (2009–2033) | 19.9 | 25.3 | 5.4 |
| 50 Years (2009–2058) | 19.6 | 26.5 | 6.9 |
| 75 Years (2009–2083) | 19.9 | 28.0 | 8.1 |

Source:    Congressional Budget Office.

1. To allow for the increase in the nominal value of the debt that would occur even if that debt was maintained at its current share of gross domestic product (GDP), the present value of outlays is adjusted to account for that change in the debt. Specifically, the current debt is added to the outlay measure, and the present value of the target end-of-period debt is subtracted. (The end-of-period debt is equal to GDP in the last year of the period multiplied by the 2008 ratio of debt to GDP.)

debt-to-GDP ratio at the end of a given period as prevailed at the beginning of the period. Under the extended-baseline scenario, the fiscal gap would amount to 2.1 percent of GDP over the next 25 years and 3.2 percent of GDP over the next 75 years. In other words, under that scenario (ignoring the effects of debt on economic growth), an immediate and permanent reduction in spending or an immediate and permanent increase in revenues equal to 3.2 percent of GDP would be needed to create a sustainable fiscal path for the next three-

quarters of a century. If the policy change was not immediate, the required percentage would be greater. The fiscal gap is much larger under the alternative fiscal scenario: 5.4 percent of GDP over the next 25 years and 8.1 percent over the next 75 years. (For information about how CBO makes those estimates, see Box 1-1.)

Long-term budget projections require a stable economic backdrop. For these projections, CBO assumed that even a large increase in federal debt would not affect economic

growth or real rates of interest after the first 10 years.[3] However, if debt actually increased as projected under either scenario, interest rates would be higher than otherwise and economic growth would be slower. The rising debt would reduce the size of the domestic capital stock (businesses' equipment and structures as well as housing) and decrease U.S. ownership of assets in other countries while increasing foreign ownership of assets in the United States. Those changes would slow the growth of gross national product (GNP) and, as the debt burden rose, could eventually lead to a decline in economic output.[4] The effects would be most striking under the alternative fiscal scenario. In CBO's estimation, the increase in debt under that scenario would reduce the capital stock by more than 20 percent and real GNP by 9 percent in 2035, compared with the levels that would occur if the debt remained roughly at its current size relative to the economy. Under the extended-baseline scenario, federal debt would be less threatening in the near term but would lead to significant economic harm in the long run. Those economic effects mean that actual fiscal pressures under current laws and policies would be even greater than CBO's long-term budget projections suggest, because slower growth would limit revenues and a smaller capital stock would imply higher interest rates on government debt and other financial instruments.

Holding down the spiraling levels of debt projected under either scenario could therefore result in significant economic benefits. However, accomplishing that goal would require some combination of substantial revenue increases and substantial spending decreases relative to current law. Those changes would have their own economic and social costs.

One policy that would prevent the increase in debt would be to raise revenues in line with the projected rise in spending. As evidenced by the estimated fiscal gap, the

required increase in revenues under that approach would be large. If the increase occurred through higher marginal tax rates, incentives to work and save would be reduced and economic growth would slow.

An alternative policy would be to hold the growth of spending in line with the growth of the economy. That approach would require significant changes in the Medicare and Medicaid programs. Many experts believe that a substantial share of spending on health care contributes little, if anything, to the overall health of the nation, so changes in government policy have the potential to yield large reductions in federal spending without harming health. However, translating that potential into reality would require tough choices. It would ultimately depend on policymakers' willingness to put ongoing pressure on the health sector to achieve efficiencies in the delivery of health care.

Reducing other federal spending significantly below the baseline levels would be difficult as well. Spending on Social Security has risen from almost 4 percent of GDP in the 1970s to almost 5 percent today and will increase to 6 percent in 2035 as the baby boomers retire. Other nonhealth, noninterest spending averaged almost 14 percent of GDP in the 1970s but has shrunk to about 10 percent of GDP over the past 15 years—aside from the current burst of spending in response to the recession and the financial crisis. Such spending is projected to decline further over time in CBO's 10-year baseline.

From a purely economic perspective, slowing the growth of spending would generally impose smaller costs than boosting tax rates, although that conclusion is somewhat sensitive to the specific measures that would be adopted. From a broader social perspective, citizens and policymakers need to judge the importance of various government programs and the costs of restraining spending on health care, retirement benefits, defense, and so on. That is, lower levels of spending would help address the fiscal sustainability problem, but society would have to make difficult choices about which programs to scale back. The difficulty of the choices notwithstanding, CBO's long-term budget projections make clear that doing nothing is not an option: Legislation must ultimately be adopted that raises revenue or reduces spending or both. Moreover, delaying action simply exacerbates the challenge, as is discussed below.

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3. For a description of the model underlying CBO's projections, see the June 2009 background paper *CBO's Long-Term Model: An Overview*.

4. Gross national product measures the income of residents in the United States after deducting net payments to foreigners. Gross domestic product, by contrast, measures the income that is generated by the production of goods and services on U.S. soil, including production financed by foreign investors. Because rising deficits generally increase borrowing from foreigners, GNP is a better measure of the economic effects of deficits than is GDP.

**Table 1-3.**

## Shares of the Growth in Spending for the Three Largest Entitlement Programs

| | Percentage of Growth |
|---|---|
| For the 2009–2035 Period | |
| Medicare and Medicaid | 80 |
| Social Security | 20 |
| For the 2009–2080 Period | |
| Medicare and Medicaid | 90 |
| Social Security | 10 |

Source:    Congressional Budget Office.

## The Outlook for Federal Spending

For much of its history, the United States devoted only a small fraction of its resources to the activities of the federal government, apart from fighting wars. But the second half of the 20th century was a period of sustained higher federal spending during peacetime. Over the past 50 years, primary federal outlays (which exclude interest spending) have averaged about 20 percent of GDP. In fiscal years 2009 and 2010, spending on stimulus legislation and on efforts to stabilize the financial markets will result in unusually high outlays (primary spending will account for 26 percent of GDP in fiscal year 2009), but outlays are projected to fall back near their historical average after a few years.

In later years, primary spending rises again in both of CBO's long-term budget scenarios. Under the extended-baseline scenario, primary spending would increase from 20 percent of GDP in fiscal year 2012 to 24 percent by 2035 and 32 percent by 2080. Primary spending would be even higher under the alternative fiscal scenario, reaching 26 percent of GDP by 2035 and 34 percent by 2080. Those higher levels occur largely because the alternative fiscal scenario assumes greater spending on federal programs other than Medicare, Medicaid, and Social Security than the extended-baseline scenario does.

### Outlays for Medicare, Medicaid, and Social Security

Over the past 50 years, federal spending has increased as a percentage of GDP, and its composition has changed dramatically. Spending for mandatory programs has grown

from about 30 percent of noninterest outlays in the early 1960s to about 60 percent in recent years. Most of that growth has been concentrated in the three largest entitlement programs: Medicare, Medicaid, and Social Security. Together, federal outlays for those three programs have accounted for roughly 45 percent of primary federal spending over the past 10 years, up from 25 percent in 1975.

In the future, projected growth in entitlement spending explains almost all of the projected growth in total noninterest spending—and the two big government health care programs largely drive that increase. Medicare and Medicaid are responsible for 80 percent of the growth in spending on the three largest entitlements over the next 25 years and for 90 percent of that growth by 2080 (see Table 1-3). CBO projects that net federal spending on Medicare and Medicaid will rise from about 5 percent of GDP in fiscal year 2009 to about 10 percent in 2035 and over 17 percent in 2080.[5] Spending on Social Security is projected to rise at a much slower pace, from almost 5 percent of GDP in 2009 to about 6 percent in later years.

Two factors account for the projected growth in the government's three largest entitlement programs: the aging of the population and the rapid growth of per capita health care costs. The retirement of the baby-boom generation (the large group of people born between 1946 and 1964) portends a long-lasting shift in the age profile of the U.S. population. That shift will substantially alter the balance between the population's working-age and retirement-age segments. The share of people age 65 or older is projected to grow from 13 percent in 2008 to 20 percent in 2035, while the share of people ages 20 to 64 is expected to fall from 60 percent to 55 percent. In later decades, the aging of the population will continue—but at a slower rate—because of increasing life expectancy.

For Social Security, aging of the population will drive the growth of spending as a share of GDP. Benefits are based on an individual's earnings and are indexed to wage growth, implying that program spending as a share of GDP is not very sensitive to overall economic growth. CBO projects that the number of workers per Social Security beneficiary will decline significantly over the

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5.   Those figures are net of premiums paid by Medicare beneficiaries and amounts paid by the states representing part of their share of the savings from shifting some Medicaid spending for prescription drugs to Part D of Medicare.

next three decades: from about 3.1 in 2008 to 2.0 in 2035. Unless immigration, fertility, or mortality rates are markedly different than assumed in these projections, that number will continue to drift downward slightly after 2035.

Both aging and excess cost growth will push up federal spending for Medicare and Medicaid as a share of GDP because growing numbers of elderly people will need increasingly expensive health care. The rapid growth of health care costs in the past few decades is the starting point for projections of health care costs in the future. Since 1975, policy changes and other factors have caused annual costs per Medicare enrollee to grow an average of 2.3 percentage points faster than per capita GDP—a difference referred to as excess cost growth. Over the same period, excess cost growth for Medicaid has averaged 1.9 percent. (Those numbers reflect adjustments for changes in the age distribution of the beneficiary population.) In its long-term projections, CBO assumes that rates of spending growth for Medicare and Medicaid will moderate to some degree even if federal laws are not changed.[6]

Between now and 2035, an aging population—driven by both the retirement of the baby-boom generation and increases in life expectancy—explains 64 percent of spending growth in Medicare, Medicaid, and Social Security. It explains all of the growth in Social Security spending and 44 percent of the growth in spending on Medicare and Medicaid over that period.

In the long term, by contrast, growth in health care spending per beneficiary is a more important factor than population aging. Excess cost growth explains 56 percent of the projected growth in spending, as a percentage of GDP, on the three largest entitlement programs between now and 2080. It explains none of the projected growth in Social Security but 70 percent of that in Medicare and Medicaid. (For further discussion of the relationship between the aging of the population, rising health care spending, and federal outlays on Medicare, Medicaid, and Social Security, see Box 1-2.)

Spending for Social Security is identical under the assumptions of the extended-baseline and alternative fiscal scenarios, and spending for Medicaid is nearly identical. In the case of Medicare, however, the different

assumptions underlying the scenarios lead to different views of the future path of spending. Because the extended-baseline scenario assumes that current law prevails, it anticipates that Medicare's sustainable growth rate mechanism will reduce payment rates for physicians by 21 percent in 2010 and then by a further 4 percent or 5 percent annually for at least the next few years. However, since 2003, the Congress has acted to prevent such reductions. Therefore, under the alternative fiscal scenario, Medicare's physician payment rates are assumed to grow at the same rate as the Medicare economic index (which measures inflation in the inputs used for physicians' services). The difference in spending for Medicare under the two scenarios amounts to less than 1 percent of GDP throughout the projection period.

Although the trust funds for Medicare and Social Security would become insolvent under the extended-baseline and alternative fiscal scenarios, both scenarios assume that those two programs will continue to pay benefits as currently scheduled.[7] (Spending for some parts of Medicare comes from general funds with no connection to the trust funds, and Medicaid has no underlying trust fund.)

**Other Federal Spending**
A larger difference between the scenarios involves the assumption about federal spending for everything other than Medicare, Medicaid, Social Security, and interest on the public debt. In CBO's baseline, spending associated with stimulus legislation and efforts to stabilize the financial markets either expires under law or is explicitly assumed to be temporary and not to recur; most of the rest of the spending in this category increases roughly with inflation and thus shrinks as a share of GDP over the 10-year budget window. Therefore, in the baseline, such "other federal spending" (apart from the stimulus and related legislation) is 10.5 percent of GDP in fiscal year 2009 and 8.6 percent in fiscal year 2019.

Under the extended-baseline scenario, other federal spending remains at about 8.6 percent of GDP from 2020 onward—except for the declining impact of refundable tax credits. Under the alternative fiscal scenario, other federal spending follows the baseline through 2011

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6. See "Underlying Assumptions for CBO's Projections of Health Care Spending" in Chapter 2 of this report.

7. The balances of those trust funds represent the total amount that the government is legally authorized to spend on each program. For a fuller discussion of the legal issues related to trust fund insolvency, see Congressional Research Service, *Social Security: What Would Happen If the Trust Funds Ran Out?* RL33514 (updated April 25, 2008).

and remains close to 10.5 percent of GDP throughout the remainder of the projection period. That level roughly equals such spending in fiscal year 2009 minus spending associated with stimulus legislation and efforts to stabilize the financial system, which are assumed to be unusual, short-term undertakings.

## The Outlook for Revenues

Like federal spending, revenues have been significantly higher in the past half-century than in previous eras. Since 1959, they have fluctuated between 16 percent and 21 percent of GDP, averaging about 18 percent. And just as spending priorities have changed during that period, the composition of revenues has shifted. Receipts from social insurance payroll taxes (for Social Security, Medicare, unemployment insurance, and retirement programs for federal civilian employees) have grown along with the size of the underlying programs, producing a larger share of total revenue. At the same time, the shares of revenue contributed by corporate income taxes and excise taxes have declined.

Federal revenues totaled 17.7 percent of GDP in fiscal year 2008. Because of the recession and the tax reductions provided in stimulus legislation, CBO expects revenues to decline sharply in fiscal year 2009, to 15.5 percent of GDP. However, under CBO's 10-year baseline, revenues are projected to rebound over the next decade as the economy improves, the tax cuts in EGTRRA and JGTRRA expire as scheduled, and a growing number of taxpayers become subject to the alternative minimum tax. As a result, revenues are projected to equal 19.6 percent of GDP in fiscal year 2012 and 20.1 percent in fiscal year 2015.

Under the extended-baseline scenario, revenues would continue to rise gradually thereafter, reaching 22 percent of GDP by 2035 and 26 percent by 2080. That increase occurs because real growth in income pushes people into higher income tax brackets over time. Moreover, inflation-related increases in income make more income subject to the AMT over time. As a result, the effective marginal tax rate on labor income would rise from 29 percent today to about 34 percent by 2035 and 35 percent by 2080. Average tax rates—that is, taxes as a share of income—would rise as well, and there would be a significant change in the way the overall tax burden was distributed among households. Under the extended-baseline scenario, the cumulative effects of inflation

would make almost half of all households subject to the AMT by 2035 and nearly three-quarters subject to it by 2080. Currently, only 3 percent of households are subject to the AMT.

Under the alternative fiscal scenario, the expiring tax provisions in EGTRRA and JGTRRA would be extended, and the parameters of the AMT would be indexed to inflation after 2009. Consequently, revenues would grow more slowly over the long term than in the other scenario, but they would still increase gradually relative to GDP because of the effects of real income growth. The effective marginal tax rate on labor income would rise to about 30 percent in 2035 and to 33 percent in 2080. Tax receipts would reach only 18 percent of GDP in 2012 and then gradually rise to 22 percent of GDP by 2080, 4 percentage points lower than in the extended-baseline scenario.

## The Accumulation of Federal Debt

For a path of spending and revenues to be sustainable, debt must eventually grow no faster than the economy. Persistent annual deficits lead to larger and larger amounts of debt, which in turn require more spending for interest payments on that debt. Thus, even moderate primary deficits (deficits excluding interest costs) can lead to unsustainable growth in federal debt.

A useful barometer of fiscal policy is the amount of government debt held by the public as a percentage of GDP. (For a discussion of why such debt is important, see Box 1-3 on page 14.) That debt stood at 41 percent of GDP at the end of fiscal year 2008, a little above the 40-year average of 36 percent. CBO projects that in the next few years, deficits will be extraordinarily high by historical standards—almost 12 percent of GDP in fiscal year 2009 and almost 8 percent in fiscal year 2010. As a result, debt will grow to 60 percent of GDP by the end of fiscal year 2010.

Under the assumptions of the extended-baseline scenario, annual deficits would fall below 2 percent of GDP by fiscal year 2013. Debt would remain roughly stable as a share of GDP for the next decade. After that, however, growing spending on Medicare, Medicaid, and Social Security would lead to higher deficits, and debt would once again increase faster than the economy. By 2035, it would equal 79 percent of GDP. Federal debt peaked at 113 percent of GDP shortly after the end of World

**Box 1-2.**

## How the Aging of the Population and Excess Cost Growth Affect Federal Spending on Medicare, Medicaid, and Social Security

Two factors underlie the projected increase in federal spending on Medicare, Medicaid, and Social Security as a share of gross domestic product (GDP): rapid growth in health care costs per beneficiary and an aging population. Either of those factors alone would boost spending, but the two effects also compound, causing outlays to rise even faster.

To illustrate, the Congressional Budget Office (CBO) calculated how much of the projected increase in federal spending for Medicare, Medicaid, and Social Security would be attributable to aging and how much to "excess cost growth" (growth in age-adjusted health care costs per person that exceeds the growth of per capita GDP) under the extended-baseline scenario. CBO did so by comparing the outlays projected under that scenario with the outlays that would occur under two alternative paths: one with an aging population but no excess cost growth for health programs and one with no aging but with excess cost growth.[1]

The interaction between the aging of the population and excess cost growth accentuates their individual effects. Higher spending per person has a larger

**Factors Explaining Future Federal Spending on Medicare, Medicaid, and Social Security**

(Percentage of gross domestic product)



Source: Congressional Budget Office.

influence as the number of beneficiaries in Medicare and Medicaid rises. Conversely, having more beneficiaries in those programs imposes a larger budgetary cost when health care costs are growing. That interaction can be identified separately, or it can be allocated according to the shares attributable to aging and excess cost growth.

Aging is the more important factor over the next 25 years or so. If the interaction is allocated between the two factors, aging accounts for about 64 percent of the projected growth in spending on the major entitlements by 2035 (see the figure above and the table on the facing page). That result is not surprising because the aging of the baby-boom generation significantly expands the number of Medicare, Medicaid, and Social Security beneficiaries. Over the longer term, however, the situation reverses: 56 percent of the growth in total federal spending for those three programs by 2080 is attributable to health care costs per person rising more rapidly than per capita GDP. (Of course, the growth of health care costs has no direct effect on spending for Social Security.)

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1. Several different approaches can be used to make those calculations. Two issues in particular arise in selecting the appropriate analytic method: what value of GDP to use when computing spending as a share of GDP, and how to construct spending under the base-case scenario. For a fuller discussion of those issues' importance in the context of spending for Medicare and Medicaid, see Congressional Budget Office, *Accounting for Sources of Projected Growth in Federal Spending on Medicare and Medicaid,* Issue Brief (May 28, 2008). The results shown here are based on approach 2 in that report. The current methodology allows GDP to vary with demographic changes in the population and attributes somewhat less of the spending growth to excess cost growth than would the methodology used in CBO's previous report, *The Long-Term Budget Outlook* (December 2007). In addition, more recent data on health care spending and other factors make excess cost growth slightly less important relative to the aging of the population than in CBO's earlier analysis.

**Continued**

## Box 1-2.                                                                                    Continued

### How the Aging of the Population and Excess Cost Growth Affect Federal Spending on Medicare, Medicaid, and Social Security

Identifying the interaction separately from the direct effects of aging and excess cost growth gives a slightly different perspective. By 2035, aging alone accounts for 56 percent of the projected growth in spending for the three entitlement programs. Excess cost growth accounts for another 32 percent, and the interaction between the two factors causes the remaining 11 percent. For the period through 2080, the picture changes, as aging accounts for 32 percent of the increase in spending, excess cost growth accounts for 41 percent, and the interaction effect contributes 26 percent.

Excess cost growth is the primary factor driving the growth of federal spending on Medicare and Medicaid, even over the intermediate term. By 2035, excess cost growth by itself accounts for 46 percent of projected growth in federal spending on those two programs. Adding in that factor's share of the interaction raises the contribution of excess cost growth to 56 percent. The figure for excess cost growth alone is similar in the long term and in the intermediate term (49 percent by 2080 and 46 percent by 2035). But with its share of the interaction included, excess cost growth is responsible for 70 percent of the projected growth in federal health care spending by 2080.

### Explaining Projected Growth in Federal Spending on Medicare, Medicaid, and Social Security by 2035 and 2080, by Source

(Percent)

|          | Aging | Interaction | Excess Cost Growth |
|----------|-------|-------------|--------------------|
| **Separating the Interaction** | | | |
| *Medicare, Medicaid, Social Security* | | | |
| 2035     | 56    | 11          | 32                 |
| 2080     | 32    | 26          | 41                 |
| *Medicare and Medicaid* | | | |
| 2035     | 37    | 16          | 46                 |
| 2080     | 21    | 31          | 49                 |
| **Allocating the Interaction** | | | |
| *Medicare, Medicaid, Social Security* | | | |
| 2035     | 64    | n.a.        | 36                 |
| 2080     | 44    | n.a.        | 56                 |
| *Medicare and Medicaid* | | | |
| 2035     | 44    | n.a.        | 56                 |
| 2080     | 30    | n.a.        | 70                 |

Source:   Congressional Budget Office.

Notes:  Social Security has a larger effect on the share of spending growth attributable to aging than might be expected given the size of the program's spending relative to that of Medicare and Medicaid. Social Security spending as a share of GDP would decline relative to current levels if the 2010 age distribution of the population were to persist, because that distribution would imply a larger labor force and a smaller retiree population in the future.

n.a. = not applicable.

## Box 1-3.

# Why Is Federal Debt Held by the Public Important?

The federal government runs a budget deficit when its annual spending exceeds its annual revenues. To finance the shortfall, the government generally has to borrow funds from the public by selling Treasury securities (bonds, notes, and bills).[1] That additional borrowing increases the total amount of federal debt held by the public, which for the most part reflects the accumulation of past budget deficits offset by past budget surpluses.

### Effects of Rising Debt Over Time

Debt held by the public can grow faster than gross domestic product (GDP) for a limited time, but it cannot do so indefinitely. If the ratio of debt to GDP continues to rise, lenders may become concerned about the financial solvency of the government and demand higher interest rates to compensate for the increasing riskiness of holding government debt. Eventually, if the debt-to-GDP ratio keeps increasing and the budget outlook does not improve, both for- eign and domestic lenders may not provide enough funds for the government to meet its obligations. By then, whether the government resolves the fiscal crisis by printing money, raising taxes, cutting spending, or going into default, economic growth will be seriously disrupted.

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1.  In most years, the amount of debt that the Department of the Treasury borrows or redeems roughly equals the annual budget deficit or surplus. However, the correspondence is not exact because a small amount of the deficit can also be financed by changes in other means of financing (such as reductions or increases in the government's cash balance, costs included in the budget but not yet paid, and cash flows reflected in credit financing accounts). In addition, transactions involving the Troubled Asset Relief Program, assistance for Fannie Mae and Freddie Mac, and purchases by the Treasury of mortgage-backed securities will have a signifi- cant effect on the federal government's cash flows in 2009 and for many years to come. However, because the transac- tions are generally assumed to be completed by 2019, they play no significant role in the Congressional Budget Office's long-term projections of the deficit.

Another measure of federal indebtedness that often receives attention is gross debt, but it is not useful for assessing how the Treasury's operations affect the economy. Gross federal debt comprises both debt held by the public and debt issued to various accounts of the federal government, including the major trust funds in the budget (such as those for Social Security). Because the debt issued to those accounts is intragovernmental, it has no direct, immediate impact on the economy. Instead, it simply represents credits to the various government accounts that can be redeemed as necessary to authorize pay- ments for benefits or other expenses. Although the Treasury assigns earnings in the form of interest to the trust funds that hold the securities, such pay- ments have no net effect on the budget.

Long-term projections of federal debt held by the public, measured relative to the size of the economy, provide useful yardsticks for assessing the sustain- ability of fiscal policies. If budget projections are carried out far enough into the future, they can show whether current commitments imply that spending will consistently exceed revenues and produce debt that grows faster than the economy. Projections of the debt-to-GDP ratio can thus indicate that changes in current policies will be necessary at some point to bring the federal budget back to a sustainable path.

### Historical and International Comparisons of Debt

The deficits and debt projected under the Congres- sional Budget Office's (CBO's) two long-term budget scenarios are large, whether compared with those in U.S. history or in other countries. Under the extended-baseline scenario, federal debt held by the public would reach 79 percent of GDP in 2035, and the annual deficit would exceed 10 percent of GDP starting in 2058. Under the alternative fiscal scenario, federal debt held by the public would rise even faster, to 181 percent of GDP in 2035, and annual deficits

**Continued**

## Why Is Federal Debt Held by the Public Important?

**Federal Debt Held by the Public as a Percentage of Gross Domestic Product**
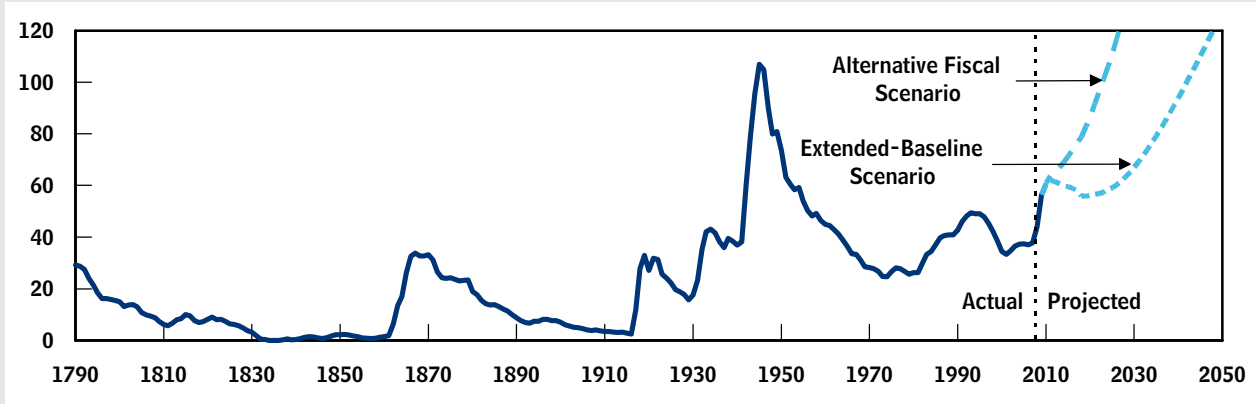


Source:    Congressional Budget Office.

would exceed 10 percent of GDP beginning in 2027. (For deficit and debt comparisons under the two scenarios, see Figure 1-2 and Table 1-2.)

Since the founding of the United States, the budget deficit has exceeded 10 percent of GDP in only a few instances, usually during or following major wars. (CBO anticipates that this year's deficit will also exceed 10 percent of GDP.) Moreover, federal debt held by the public has surpassed 100 percent of GDP only for a brief period during and just after World War II (see the figure above). That budgetary situation was temporary, however. After peaking at 113 percent in 1945, federal debt held by the public declined as a percentage of GDP to its lowest level in the post–World War II era, 24 percent in 1974. Similarly, when federal debt increased in the 1980s, its rise was followed by declining deficits from 1993 to 1997 and surpluses from 1998 through 2001. The systematic widening of budget shortfalls projected under CBO's long-term scenarios has never been observed in U.S. history.

International comparisons show that the debt projected for the United States under CBO's two scenarios would also be greater than the amounts that other industrialized nations have accumulated in the post–World War II period. Among developed countries, Belgium and Italy carried net debt amounting to

more than 100 percent of their GDP in the 1990s. Net public debt averaged about 103 percent of GDP in Italy and 110 percent in Belgium during the second half of the 1990s.[2] However, those two countries' experience involved debt that, relative to GDP, later fell modestly in the case of Italy (to 88 percent in 2007) and dropped significantly in the case of Belgium (to 73 percent in 2007). In both countries, debt did not grow continually faster, as is projected under CBO's long-term scenarios. Even so, to keep their debt under control, those governments had to make significant changes in fiscal policy to stop the upward trend in the growth of debt relative to GDP. Japan saw its net public debt steadily increase during the past two decades, from 13 percent in 1991 to 86 percent in 2007. To slow that increase, the government managed to reduce annual budget deficits from 8 percent of GDP in 2002 to 4 percent in 2007. Even so, the Organisation for Economic Co-operation and Development has urged Japan to go further to promote fiscal sustainability by cutting government spending and raising revenues.[3]

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2.  Organisation for Economic Co-operation and Development, *Economic Outlook* (Paris: OECD, December 2008).

3.  Organisation for Economic Co-operation and Development, *Economic Survey of Japan, 2008* (Paris: OECD, April 2008).

War II, a mark that would be passed in 2046 under the extended-baseline scenario.

Under the alternative fiscal scenario, deficits would decline for a few years after 2009 but then grow quickly again. By 2019, debt would reach 83 percent of GDP. After that, the spiraling costs of interest payments would swiftly push debt to unsustainable levels. Debt would exceed its historical peak of 113 percent of GDP by 2026 and would reach 200 percent of GDP in 2038.

Many budget analysts believe that the alternative fiscal scenario presents a more realistic picture of the nation's underlying fiscal policy than the extended-baseline scenario does—because, for example, it does not allow the impact of the AMT to expand substantially. To the extent that such a belief is valid, the explosive path of federal debt under the alternative fiscal scenario underscores the need for large and rapid corrective steps to put the nation on a sustainable fiscal course.

Moreover, CBO's projections understate the debt that would accumulate under the two scenarios. Long-term budget projections require a stable economic backdrop; thus, for the purpose of the projections, CBO made assumptions that generated a stable real interest rate and stable growth in real wages and output. In effect, the analysis omitted the pressures that a rising ratio of debt to GDP would have on real interest rates and economic growth. Changes in the demographic structure of the population are likely to offset somewhat the effects of high debt levels on real interest rates. In the end, however, ever-growing deficits and debt would lead to higher interest rates and slower economic growth.

## The Economic Impact of Rising Federal Debt

The large amounts of federal debt that would accumulate under each of CBO's long-term budget scenarios imply that the government would have to spend increasing amounts to pay interest on that debt. The growth of debt would lead to a vicious cycle in which the government had to issue ever-larger amounts of debt in order to pay ever-higher interest charges. Eventually, the government would need to adopt some offsetting measures—such as cutting spending or increasing taxes—to break the cycle and put the federal budget on a sustainable path.[8]

If the long-term outlook for the budget appears sustainable, temporary deficits for a few years do not create large economic problems and can have significant benefits in some circumstances. For example, a deficit that results from automatic declines in tax revenues or increases in government spending in a recession (due to reductions in economic activity and more people losing jobs) helps reduce the severity of the downturn, and such a short-term budgetary imbalance will be reversed when the economy recovers. In addition to automatic changes, deficit-financed fiscal stimulus—such as the tax rebates in the Economic Stimulus Act of 2008 (Public Law 110-185) and the spending increases and tax cuts in the American Recovery and Reinvestment Act of 2009 (P.L. 111-5)—can also help the economy return to full employment.[9] Thus, the ability of the federal government to run budget deficits enables fiscal policy to offset some of the negative impact of a recession. However, even temporary deficits cause an increase in debt that crowds out productive capital and reduces output in the long run (assuming that the government does not run budget surpluses later to retire the additional debt).

Moreover, the fundamental cause of the rapidly rising debt in CBO's long-term scenarios is not economic fluctuations resulting from business cycles. Instead, debt soars because of unrelenting growth in federal spending on health care programs and a rise in Social Security spending as a share of GDP, combined with a much smaller increase in tax revenues. The ever-greater budget deficits projected under those scenarios would negatively affect the economy through several channels. More government borrowing would drain the nation's pool of savings, reducing investment in the domestic capital stock

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8. The government would have trouble issuing ever-increasing amounts of debt relative to GDP forever because there is a limit to the amount that savers want to save. If federal debt grew faster than the maximum rate at which savers were willing to acquire that debt (in the form of Treasury securities), government policies would be unsustainable. To regain sustainability, the growth rate of the market value of debt would have to decline enough that savers or investors would be willing to acquire more Treasury securities. That growth rate could be reduced in a number of ways: Debt could lose its market value through increases in the general price level or decreases in the prices of long-term bonds, or the government could reduce budget deficits.

9. See Congressional Budget Office, "Estimated Macroeconomic Impacts of the American Recovery and Reinvestment Act of 2009," letter to the Honorable Charles E. Grassley (March 2, 2009).

and in foreign assets. In addition, a worsening fiscal situation might put pressure on monetary policy, potentially endangering the Federal Reserve's ability to keep inflation low and stable. If the budget continued along the path of rising debt, serious concerns about fiscal solvency would arise. Investors would require the government to pay an interest premium on its securities to compensate for the risk that they might not be repaid or that the value of their securities would be eroded by inflation. Such a premium would drive up the cost of borrowing. Finally, the longer the growth of debt persisted, the larger and more costly would be the policy changes needed to control debt, which could further increase the burden of fiscal tightening on future generations.

Most economists agree that greater government borrowing would raise interest rates and lead to greater private saving. But the offset would be far from complete, so national saving would decline.[10] That decline would in turn reduce investment in the United States but not on a one-for-one basis (at least initially), because higher interest rates would attract foreign capital to the United States and perhaps induce U.S. investors to keep more of their money at home. As investment was displaced by government debt, GDP would grow more slowly and eventually decline. In the longer run, as the debt continued to grow and unless the interest premium was very large, capital would probably flee the United States, further reducing investment.

To quantify the effect of rising federal debt projected under the two long-term scenarios, CBO applied a "textbook" growth model.[11] The textbook growth model assumes that part of the deficit is financed from abroad (and ignores the likelihood of capital flight). Therefore, some portion of GDP would have to be sent abroad to service or repay that debt and thus would not be available to U.S. consumers. For that reason, the economic analysis that follows focuses on what happens to gross national product—which measures the income of U.S. residents after deducting net payments to foreigners—rather than

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10. National saving is private saving plus public saving by state, local, and federal governments. (Public saving equals surpluses minus deficits; therefore, surpluses add to public saving and deficits subtract from it.)

11. For a description of the textbook growth model, see Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 2010* (June 2009), Appendix B.

the more familiar GDP. (The level of GNP is currently not much different from that of GDP.)

**Effects Under the Extended-Baseline Scenario**
Under the extended-baseline scenario, federal debt would rise substantially after the 2020s. According to the textbook growth model, the debt projected under that scenario would reduce the capital stock by about 5 percent in 2035 and shrink real GNP by about 2 percent, compared with what they would be if debt remained roughly at its 2008 share of GNP (by keeping the spending and revenue shares of GNP at roughly their 2008 levels). By 2080, federal debt would approach 300 percent of GNP, and the capital stock would be reduced by nearly 40 percent and real GNP by almost 20 percent.

Such estimates are based on the assumption that the government would continue on the unsustainable budget path as projected under the extended-baseline scenario. The analysis mainly focuses on the effect of soaring federal deficits and debt. It does not incorporate the financial markets' reactions to a fiscal crisis and the actions that the government would adopt to resolve such a crisis. Because the textbook growth model is not forward-looking, the analysis assumes that people will not anticipate the sustainability issues facing the federal budget; as a result, the model predicts only a gradual change in the economy as federal debt rises.

In actuality, the economic effects of rapidly growing debt would probably be much more disorderly as investors' confidence in the nation's fiscal solvency began to erode. If foreign investors anticipated an economic crisis, they might significantly reduce their purchases of U.S. securities, causing the exchange value of the dollar to plunge, interest rates to climb, and consumer prices to shoot up. Amid the anticipation of declining profits and of rising inflation and interest rates, stock prices might fall, and consumers might sharply curtail their purchases. In such circumstances, the economic problems in the United States would probably spill over to the rest of the world, seriously weakening the economies of U.S. trading partners. All in all, the U.S. economy could contract sharply for a long period.

Theoretically, one way to reduce government indebtedness would be to adopt a policy of higher inflation. That approach would lower the real value of the government's debt and provide relief in the short run. But printing money is not a feasible long-term strategy for dealing
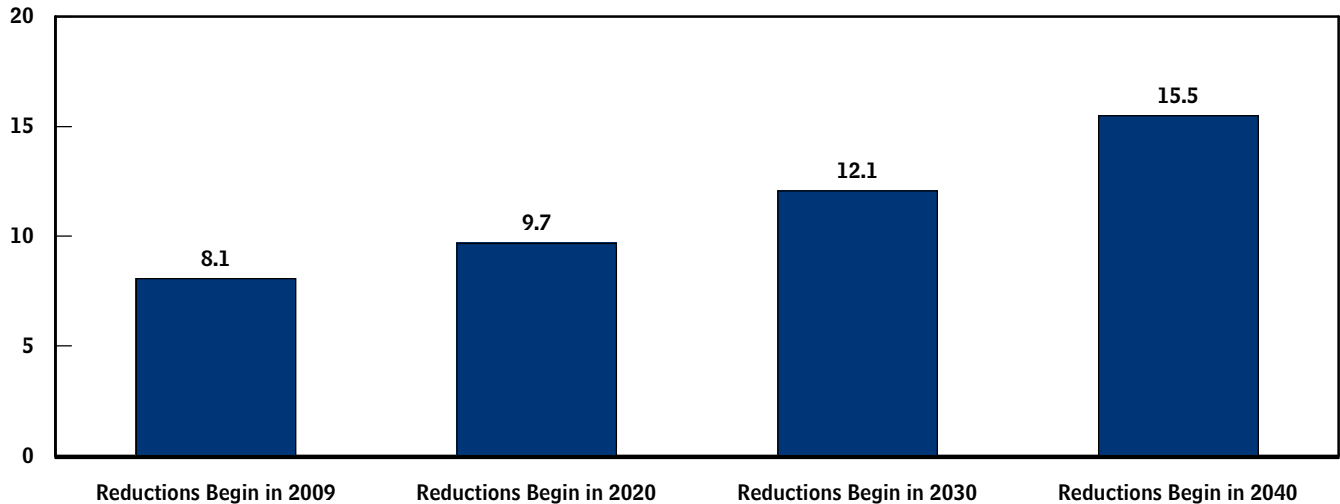
**Figure 1-4.**

# Reductions in Noninterest Spending Needed to Close the Fiscal Gap in Various Years Under CBO's Alternative Fiscal Scenario

(Percentage of gross domestic product)



Source:   Congressional Budget Office.

Notes:  The fiscal gap is a measure of federal shortfalls over a given period. It represents the extent to which the government would need to immediately and permanently either raise tax revenues or cut spending—or do both, to some degree—to make the government's debt the same size (in relation to the economy) at the end of that period as it was at the beginning.

The alternative fiscal scenario deviates from CBO's baseline projections, beginning in 2010, by incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

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with persistent and rising debt. Although an unexpected increase in inflation would let the government repay its debt in cheaper dollars for a short time, financial markets would not be fooled for long, and investors would demand higher interest rates going forward. If the government continued to print money to reduce the value of the debt, the policy would eventually lead to hyperinflation (as occurred in Germany in the 1920s, Hungary in the 1940s, Argentina in the 1980s, Yugoslavia in the 1990s, and Zimbabwe today). Such hyperinflation would severely reduce economic efficiency as people moved away from monetary transactions.

Moreover, even if inflation was eventually brought back under control, the resulting loss of confidence would keep interest rates elevated for some time. High inflation causes governments to lose credibility in financial markets; once that credibility has been lost, lowering expectations about inflation can be difficult. In the end, printing money to finance deficits cannot address the fundamental problem that spending exceeds revenues.

**Effects Under the Alternative Fiscal Scenario**

In CBO's analysis, federal debt would rise much more steeply under the alternative fiscal scenario, reducing the capital stock in 2035 by more than 20 percent compared with what it would be if the deficit stayed at roughly its 2008 level as a share of GNP. According to the estimates of the textbook growth model, that reduction in the capital stock and increased indebtedness to foreigners would in turn lower real GNP in 2035 by about 9 percent. Losses to the U.S. economy would grow rapidly thereafter. By 2045, rising federal debt would reduce the capital stock by more than 35 percent and real GNP by about 16 percent. (Starting in the 2060s, projected deficits become so large and unsustainable that CBO's textbook growth model cannot calculate their effects.) Even more than in the extended-baseline scenario, economic disruption could occur much sooner than projected by the textbook growth model if investors and others came to expect future budgetary deterioration.

**Figure 1-5.**

## Noninterest Spending Under Various Assumptions About Closing the Fiscal Gap in CBO's Alternative Fiscal Scenario
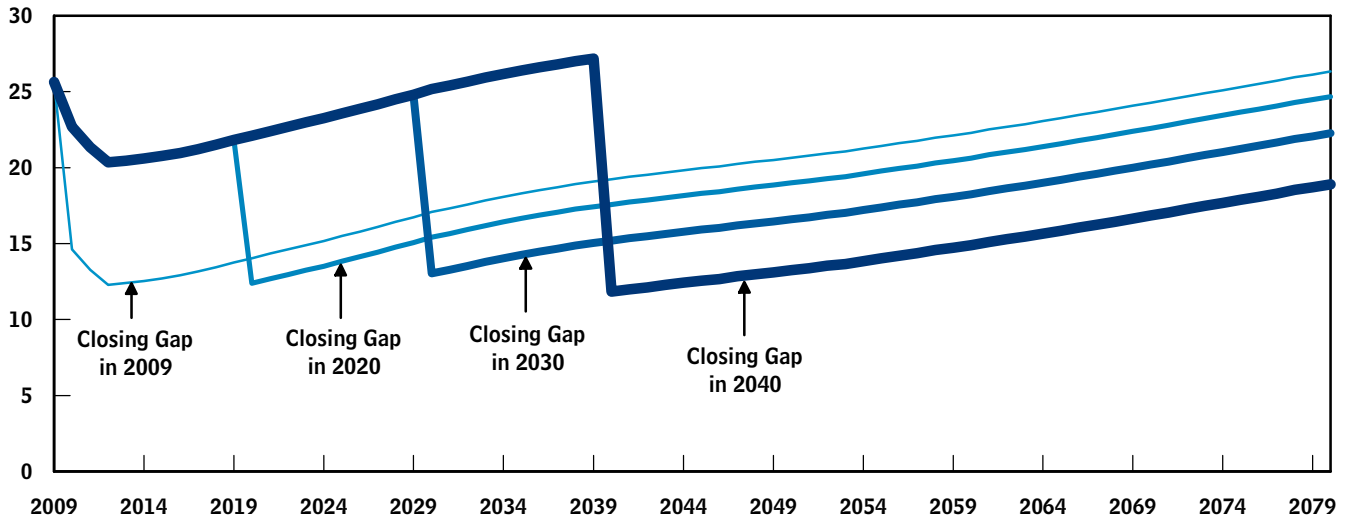
(Percentage of gross domestic product)



Source:    Congressional Budget Office.

Notes:  The fiscal gap is a measure of federal shortfalls over a given period. It represents the extent to which the government would need to immediately and permanently either raise tax revenues or cut spending—or do both, to some degree—to make the government's debt the same size (in relation to the economy) at the end of that period as it was at the beginning.

The alternative fiscal scenario deviates from CBO's baseline projections, beginning in 2010, by incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

## What Are the Costs of Delaying Action on the Budget?

The choice facing policymakers is not whether to address rising deficits and debt but when and how to do so. Debt is projected to soon grow to unsustainable levels even under the extended-baseline scenario, which assumes that spending on programs other than Medicare, Medicaid, and Social Security will decline substantially (relative to GDP) over the next 10 years and that revenues will increase as a percentage of GDP over the long term from their average historical levels. Under the alternative fiscal scenario, debt is projected to soar almost immediately.

Reducing the growth of the major entitlement programs—Social Security, Medicare, and Medicaid—would go a long way toward lowering the projected levels of debt relative to GDP. The aging of the population has the most significant impact on entitlement costs over the intermediate term, but policymakers have little control over such demographic changes. However, policy changes that altered the eligibility age for programs or modified benefits for the elderly could help offset some of the

effects of aging on federal spending. In the long run, the growth of health care spending per beneficiary will drive federal entitlement spending. It would be difficult to produce a sustainable fiscal policy without reducing such spending growth.[12]

The longer that policy action on the budget is put off, the more costly and difficult it will be to resolve the long-term budgetary imbalance. Delays in taking action would create three major problems:

■ The amount of government debt would rise, which would displace private capital—reducing the total resources available to the economy—and increase borrowing from abroad.

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12. In December 2008, CBO released two reports that are intended to help the Congress as it contemplates possible changes—both large and small—to federal health programs and the nation's health insurance and health care systems: *Key Issues in Analyzing Major Health Insurance Proposals* and *Budget Options, Volume 1: Health Care*.

■ The share of federal outlays devoted to paying interest on the federal debt would grow, so lawmakers would have to make ever-larger policy changes to achieve balance. As interest costs rose, policymakers would be less able to pay for other national spending priorities and would have less flexibility to deal with unexpected developments (such as a war or recession). Moreover, rising interest costs would make the economy more vulnerable to a meltdown in financial markets.

■ Uncertainty about the economy would increase. The longer that action was put off, the greater the chance that policy changes would ultimately occur suddenly, possibly creating difficulties for some individuals and families, especially those in or near retirement. Announcing changes to entitlement programs or to the tax structure well in advance would give people time to adjust their plans for saving and retirement. Those adjustments could significantly reduce the impact of such policy changes on people's standard of living.

CBO's simulations indicate that under the alternative fiscal scenario, postponing action could substantially increase the size of the policy adjustments needed to put the budget on a sustainable course. If policymakers wanted to close the fiscal gap in 2020 by altering spending (and economic effects were ignored in the calculation), they would have to reduce noninterest outlays permanently by 10 percent of GDP (see Figure 1-4 on page 18). If they waited until 2040 to close the fiscal gap, they would have to reduce noninterest outlays permanently by almost 16 percent of GDP (see Figure 1-5 on page 19). Incorporating the effects of deficits and debt on economic growth (which are excluded from these simulations) would make the impact of delaying policy changes even more severe.

# The Long-Term Outlook for Medicare, Medicaid, and Total Health Care Spending

**S**pending for health care in the United States has been growing faster than the economy for many years, posing a challenge not only for the federal government's two major health insurance programs, Medicare and Medicaid, but also for the private sector. Measured as a percentage of the nation's gross domestic product, total spending for health care increased from 4.7 percent in 1960 to 15.2 percent in 2007, the most recent year for which data are available.[1] Total spending for Medicare and Medicaid (which for the latter includes both federal and state spending) rose from 1.7 percent of GDP in fiscal year 1975 to 5.7 percent in fiscal year 2008. Over the same period, net federal spending for the two programs rose from 1.2 percent of GDP to 4.1 percent.[2]

The growth of health care spending in the long term will be determined primarily by growth in the cost of medical care per person. The aging of the population will also contribute to future spending growth, especially for Medicare, which will cover a growing number of beneficiaries as baby boomers become eligible for the program and life expectancy continues to rise. Those demographic trends are also projected to increase costs for Medicaid by boosting the demand for long-term care. The Congressional Budget Office projects, however, that spending for Medicare and Medicaid will increase much more rapidly than will their enrollments—because the programs' costs per beneficiary are growing faster than the economy.

CBO projects that without significant changes in policy, total spending for health care will be 31 percent of GDP by 2035 and will increase to 46 percent by 2080. Total spending for Medicare is projected to increase to 8 percent of GDP by 2035 and to 15 percent by 2080. Total spending for Medicaid is projected to increase to 5 percent of GDP by 2035 and to 7 percent by 2080.

## Overview of the U.S. Health Care System

A combination of private and public sources finances health care in the United States. Most Americans under the age of 65 have private health insurance that they obtained through an employer. According to CBO's estimates, in 2010, about 56 percent of that population (150 million people) will have employment-based coverage, and about 5 percent (13 million people) will have private coverage purchased directly from an insurer.[3] At any given time during that year, in CBO's estimation, about 50 million people (19 percent of the nonelderly population) will be uninsured. In 2010, CBO projects, about 100 million people will be covered by Medicare and Medicaid, the two main sources of public financing for health care.

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1. National health expenditures in 2007 totaled 16.2 percent of GDP. However, the concept of "total spending for health care" used in this report comprises spending for health services and supplies as defined in the national health expenditure accounts maintained by the Centers for Medicare and Medicaid Services. That spending includes all expenditures on personal health care, governments' administrative costs and public health activities, and the net costs of private health insurance. It excludes two categories of spending that are part of national health expenditures: amounts invested in research and in structures and equipment.

2. Those figures are net of premiums paid by Medicare beneficiaries and amounts paid by the states representing part of their share of the savings from shifting some Medicaid spending for prescription drugs to Part D of Medicare.

3. Some of those classified as having employment-based insurance will also have directly purchased coverage.

In 2007, total spending for health care (spending for health services and supplies) amounted to nearly $2.1 trillion, or 15.2 percent of the nation's GDP. Some 54 percent of that amount was financed privately; the rest of the spending came from public sources. Payments by private health insurers were the largest component of private spending, making up 37 percent of total expenditures on health care. Consumers' out-of-pocket expenses, which include payments made to satisfy deductibles, copayments for services covered by insurance, and payments for services not covered by insurance, accounted for 13 percent of those expenditures.[4] Other sources of private funds, such as philanthropy and certain employers (those that maintain on-site clinics for their workers), accounted for 4 percent of total health care spending.

Federal spending for Medicare made up 21 percent of total health care expenditures in 2007, and federal and state spending for Medicaid, 16 percent. A variety of other public programs accounted for 10 percent of total spending. Such programs included those run by state and local governments' health departments, the Department of Veterans Affairs, and the Department of Defense; workers' compensation programs; and the Children's Health Insurance Program.

From 1975 to 2007, the share of total health care spending that was financed privately shrank slightly, dropping from 59 percent to 54 percent, while the share that was financed publicly expanded correspondingly, increasing from 41 percent to 46 percent. During that period, consumers' out-of-pocket payments fell from 31 percent of total expenditures to 13 percent, and payments by private insurers rose from 25 percent to 37 percent.

## Overview of the Medicare Program

Medicare provides federal health insurance for 45 million people who are elderly or disabled (the elderly make up about 85 percent of enrollees) or who have end-stage renal disease or amyotrophic lateral sclerosis (also known as Lou Gehrig's disease). People become eligible for Medicare on the basis of age when they reach 65; disabled individuals become eligible for Medicare 24 months after they become eligible for benefits under Social Security's Disability Insurance program.

Part A of Medicare, or Hospital Insurance, covers inpatient services provided by hospitals as well as skilled nursing and hospice care. Part B, or Supplementary Medical Insurance, covers medical equipment and services provided by physicians and other practitioners and by hospitals' outpatient departments. Part B also covers a limited number of drugs, most of which must be administered by injection in a physician's office.[5] Depending on the circumstances, home health care may be covered under either Part A or Part B. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 added a voluntary prescription drug benefit to the program, which became available in 2006 as Part D of Medicare.

The various parts of the program are financed through different means. Part A benefits are financed primarily by a payroll tax (2.9 percent of taxable earnings), the revenues from which are credited to the Hospital Insurance (HI) Trust Fund. The fund in turn pays for benefits and administrative costs under Part A and makes other authorized expenditures. For Part B, premiums paid by beneficiaries cover about one-quarter of its outlays, and general revenues cover the rest.[6] Enrollees' premiums under Part D are set to cover about one-quarter of the cost of the basic prescription drug benefit. However, receipts from premiums cover less than one-quarter of Part D's total cost because some of the federal outlays for it (such as subsidies for low-income beneficiaries and for employers

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4. Out-of-pocket payments do not include the premiums that people pay for health insurance because premiums fund the payments that insurers provide, which are already included in the measure of private spending.

5. Certain other drugs are also covered under Part B, including oral cancer drugs if injectable forms are available, oral antinausea drugs that are used as part of a cancer treatment, and oral immunosuppressive drugs that are used after an organ transplant.

6. The standard premiums are set each year to cover 25 percent of projected average expenditures under Part B. For 2009, the standard monthly Part B premium is $96.40. Since 2007, higher-income beneficiaries have been required to pay higher premiums. For 2009, the income thresholds at which people are responsible for paying those higher premiums (which will be indexed for inflation in future years) are annual income of more than $85,000 for single individuals and income greater than $170,000 for couples. CBO estimates that about 5 percent of beneficiaries will pay the higher premiums in 2009. However, because of low inflation, most beneficiaries' premiums will remain at $96.40 through 2012, CBO projects. (See "Effect of a Zero Social Security COLA on Part B Premiums in Medicare," *CBO Director's Blog*, April 23, 2009, www.cbo.gov.)

**Table 2-1.**

## Medicare Spending for Benefits, by Type of Service, Fiscal Year 2008

| | Billions of Dollars | Percent |
|---|---|---|
| Inpatient Hospital Services | 129.1 | 28 |
| Physicians' and Suppliers' Services | 88.1 | 19 |
| Medicare Advantage Plans | 92.8 | 20 |
| Prescription Drug Benefits | 43.8 | 10 |
| Hospital Outpatient Services[a] | 20.9 | 5 |
| Care in Skilled Nursing Facilities | 23.9 | 5 |
| Home Health Services | 16.5 | 4 |
| Hospice Services | 11.4 | 3 |
| Other Services[b] | 27.4 | 6 |
| **Total** | **453.9** | **100** |

Source:    Congressional Budget Office.

a.    Includes only hospital outpatient services for which payment is made under Medicare's prospective payment system.

b.    Includes hospital outpatient services for which payment is not made under Medicare's prospective payment system and services provided by outpatient dialysis facilities, rural health clinics, and various other facilities.

that maintain drug coverage for their retirees) are not included in the calculation of premiums.

In fiscal year 2008, net mandatory federal spending for Medicare was $386 billion.[7] Gross spending for the program totaled $456 billion, of which $454 billion covered benefits for enrollees. About 28 percent of that $454 billion paid for inpatient hospital care, and 19 percent paid for services provided by physicians and other professionals as well as outpatient ancillary items or services (see Table 2-1).[8] About 20 percent of Medicare's expenditures went toward the Medicare Advantage program (discussed

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7.    Mandatory spending does not require annual appropriations, and the available funding is not limited. Mandatory Medicare spending includes the cost of benefits and certain administrative activities, such as those for combating fraud. Discretionary Medicare spending includes the costs of operating the program, which cover administration, research, and claims processing.

8.    "Other professionals" include physician assistants, nurse practitioners, psychologists, clinical social workers, and physical, occupational, and speech therapists. "Outpatient ancillary items or services" include durable medical equipment, Part B drugs, laboratory services, and ambulance services.

below), and 10 percent paid for prescription drug benefits under Part D.

Most Medicare beneficiaries receive their Part A and Part B benefits through the traditional fee-for-service portion of the program, which pays providers for each covered service (or bundle of services) they provide. Beneficiaries must pay part of the costs of their care through deductibles and copayments. Unlike many private insurance plans, Medicare does not include an annual cap on beneficiaries' cost sharing. In 2005, though, nearly 90 percent of beneficiaries who received care in the fee-for-service portion of Medicare had supplemental insurance that covered many or all of the program's cost-sharing requirements. The most common sources of supplemental coverage were plans for retirees offered by former employers (held by 37 percent of beneficiaries in the fee-for-service part of Medicare), individually purchased medigap policies (33 percent of beneficiaries), and Medicaid (17 percent).[9]

As of May 2009, 24 percent of Medicare beneficiaries were enrolled in private health plans under the Medicare Advantage program (also known as Part C of Medicare). The private plans submit bids indicating the per capita payment for which they are willing to provide benefits under Part A and Part B of Medicare, and the government compares those bids with county-level benchmarks that are determined in advance through statutory rules. If a plan's bid exceeds the benchmark, the plan is paid the amount of the benchmark; if a plan's bid is less than the benchmark, the plan is paid the amount of the bid plus 75 percent of the amount by which the benchmark exceeds the bid. Plans must return that 75 percent to beneficiaries as additional benefits (such as reduced cost sharing for Medicare services) or as a rebate on their premiums for Part B or Part D.

Under current law, benchmarks in a county are required to be at least as great as per capita expenditures incurred in the fee-for-service portion of Medicare in that county. In many such jurisdictions, the benchmarks are higher

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9.    Medicare Payment Advisory Commission, *A Data Book: Healthcare Spending and the Medicare Program* (June 2008), p. 61. Some low-income or medically needy individuals who are eligible for Medicare are also eligible for some level of assistance from their state Medicaid program. Such assistance may include help in paying for Medicare premiums and cost sharing as well as the coverage of benefits not offered under Medicare.

than those expenditures. CBO calculates that for 2009, benchmarks will be 18 percent higher, on average, than projected fee-for-service expenditures per capita nationwide, and that payments to Medicare Advantage plans will be about 14 percent higher than spending per beneficiary in the fee-for-service portion of the program.

## Overview of the Medicaid Program

Medicaid is a joint federal–state program that pays for health care services for a variety of low-income individuals. The program, created in 1965 by the same legislation that created Medicare, replaced an earlier program of federal grants to states to provide medical care to people who had low income. In fiscal year 2008, federal spending for Medicaid was $201 billion, of which $180 billion covered benefits for enrollees. (In addition to benefits, Medicaid's spending covered payments to hospitals that treat a "disproportionate share" of low-income patients, costs for the Vaccines for Children program, and administrative expenses.) The federal government's share of Medicaid's spending for benefits varies among the states but generally averages 57 percent. (Under a provision of the American Recovery and Reinvestment Act of 2009, that share temporarily increases to approximately 67 percent from fiscal year 2009 through the first quarter of fiscal year 2011.) In fiscal year 2008, states spent $152 billion on Medicaid.

States administer their Medicaid programs under federal guidelines that specify a minimum set of services that must be provided to certain poor individuals. Mandatory benefits include inpatient and outpatient hospital services, services provided by physicians and laboratories, and nursing home and home health care. Groups that must be eligible (according to federal requirements) include poor children and families who would have qualified for the former Aid to Families with Dependent Children program, certain other poor children and pregnant women, and most elderly and disabled individuals who qualify for the Supplemental Security Income program. In general, a person who enrolls in Medicaid must have both a low income and only a few assets, although the minimum financial thresholds vary, depending on the basis for an enrollee's eligibility.

Within broad statutory limits, states have flexibility in administering the Medicaid program and determining its scope. Partly as a result, the program's rules are complex, and it is difficult to generalize about the types of enrollees

covered, the benefits offered, and the cost sharing required. States may choose to make additional groups of people eligible (such as individuals who have high medical expenses and have "spent down" their assets) or to provide additional benefits (such as coverage for prescription drugs and dental services), and they have exercised those options to varying degrees. Moreover, many states seek and receive federal waivers that allow them to provide benefits and cover groups that would otherwise be excluded. By one estimate, total expenditures on optional populations and benefits accounted for about 60 percent of the Medicaid program's spending in 2001.[10]

On the basis of data from the Department of Health and Human Services, CBO estimates that about half of Medicaid's 62 million enrollees in fiscal year 2008 were poor children and that another one-quarter were either the parents of those children or poor pregnant women (see Table 2-2).[11] Per capita costs for those groups were relatively low, though, whereas expenses were higher for elderly and disabled beneficiaries, many of whom required long-term care. (Although the elderly and disabled constitute about one-quarter of Medicaid's enrollees, they account for two-thirds of the program's spending.) Overall, about one-third of Medicaid's spending in fiscal year 2008 was for long-term care, which includes nursing home services, home health care, and other medical and social services for people whose disabilities prevent them from living independently.

About 50 percent of Medicaid beneficiaries are enrolled in managed care plans that accept a capitated payment (a fixed amount per enrollee) for providing a comprehensive set of benefits. Those arrangements are more common for families and children, although some states also enroll elderly and disabled people in such plans. About 15 percent of beneficiaries are enrolled in an arrangement that provides what is termed primary care case management, in which enrollees select (or are assigned) a primary care physician or group practice that is paid an additional fee for overseeing and coordinating their care. Many states also use "carve-out" arrangements, in which a state

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10. See Kaiser Commission on Medicaid and the Uninsured, *Medicaid Enrollment and Spending by "Mandatory" and "Optional" Eligibility and Benefit Categories* (Washington, D.C.: Henry J. Kaiser Family Foundation, June 2005), p. 11.

11. The enrollment figure of 62 million includes anyone who was enrolled in Medicaid at any time during 2008. Average monthly enrollment during that year was about 50 million.

**Table 2-2.**

# Medicaid Enrollees and Federal Benefit Payments, by Category of Enrollee, Fiscal Year 2008

| | Enrollees | | Federal Benefit Payments | | Percentage of Benefit Payments for Long-Term Care |
| --- | --- | --- | --- | --- | --- |
| | Number (Millions) | Percent | Billions of Dollars | Percent | |
| Aged | 5.6 | 9 | 39.2 | 22 | 69 |
| Disabled | 9.6 | 15 | 79.2 | 44 | 36 |
| Children | 30.6 | 49 | 36.7 | 20 | 7 |
| Other Adults | 16.3 | 26 | 24.7 | 14 | 2 |
| **Total** | **62.1** | **100** | **179.8** | **100** | **33** |

Source:   Congressional Budget Office using data from the Department of Health and Human Services.

contracts with organizations that assume the responsibility and financial risk for providing a subset of Medicaid benefits, such as dental services or mental health care.

# The Historical Growth of Health Care Spending

For the most part, total spending for health care in the United States—that is, private and public spending combined—has risen steadily as a share of GDP over the past several decades (see Figure 2-1 on page 31). A notable exception was the period from 1993 to 2000, when health care's share of the economy remained relatively stable. Many analysts have attributed that lull in growth to a substantial rise in the number of people enrolled in managed care plans as well as to excess capacity among some types of providers, which increased the leverage that health plans had in negotiating payments.

Costs for Medicare and Medicaid have also grown rapidly in recent decades. Between fiscal years 1975 and 2008, federal spending for Medicare rose from 0.8 percent of GDP to 2.7 percent, in part because of increased enrollment, which climbed from 25 million in 1975 to 45 million in 2008. (Those figures for spending are net of Medicare beneficiaries' premiums and, beginning in 2006, amounts paid by the states from savings on prescription drug costs in the Medicaid program. In fiscal year 2008, those offsetting receipts from premiums and states' payments equaled 0.5 percent of GDP.) Between fiscal years 1975 and 2008, total spending for Medicaid, including spending by the states, increased from 0.8 percent of GDP to 2.5 percent. Over that same period, fed-

eral spending for the program increased from 0.4 percent of GDP to 1.4 percent.

## Factors Underlying the Historical Growth of Health Care Spending

Most analysts agree that the most important factor contributing to the growth of spending for health care in recent decades has been the emergence, adoption, and widespread diffusion of new medical technologies and services.[12] Major advances in medical science allow providers to diagnose and treat illnesses in ways that previously were impossible. Many of those innovations rely on costly new drugs, equipment, and skills. Other innovations are relatively inexpensive, but their costs add up quickly as growing numbers of patients make use of them. Although technological advances can sometimes reduce costs, in medicine such advances and the resulting changes in clinical practice have generally increased spending.

Other factors that have contributed to the growth of health care spending include increases in personal income and the growth of health insurance coverage. Demand for medical care tends to rise as real (inflation-adjusted) family income increases. Moreover, the expansion of insurance coverage in recent decades, as evidenced by the substantial reduction in the percentage of health care spending that people pay out of pocket, has also increased demand, because insurance coverage reduces the cost of medical care for consumers. However, according to the best available evidence, increasing income and insurance

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12. See Congressional Budget Office, *Technological Change and the Growth of Health Care Spending* (January 2008).

coverage cannot explain much of the growth in health care spending in recent decades.

Another source of spending growth has been the aging of the population. Among adults, average medical spending generally increases with age, so as the population becomes older, per capita spending for health care rises. Over the past 30 years, the effect of aging on such spending has been relatively modest. But in the coming decades, the aging of the baby-boom generation will account for a large share of the growth in spending for Medicare and Medicaid. (See Box 1-2 on page 12 for a discussion of those demographics and the growth of federal health care costs.) Demographics will also have a growing effect on national health care spending.

### Excess Cost Growth

When analyzing historical trends in the growth of health care spending, it is useful to distinguish between the various components of that growth. Factors that affect spending for health care include general inflation; growth in the size of the population; and, to a lesser extent, changes in the population's age composition. Removing the effects of those factors reveals the amount of spending growth attributable to factors beyond inflation and demographics.

The most useful way to measure the growth of spending over the long term is to gauge the increase in health care spending for an average individual relative to the growth of GDP per capita, which is commonly referred to as "excess cost growth."[13] The phrase is not intended to imply that growth in per capita spending for health care is necessarily excessive or undesirable. It simply measures the extent to which the growth in such spending exceeds the growth in per capita GDP, after adjustments for changes in the age composition of the population.

CBO's projections are based in part on historical trends in excess cost growth since 1975. The purpose of beginning in that year is to include a long historical period but exclude the start-up period for Medicare and Medicaid. By 1975, both programs had been in effect for nearly 10 years, and Medicare's benefits had been available to

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13. The effect of general inflation is removed from excess cost growth because the growth of spending for health care is measured relative to the growth of per capita GDP, both of which are affected by general inflation.

nonelderly disabled Social Security beneficiaries for 2 years.

In computing historical rates of overall cost growth, CBO removes the effects of changes in the age composition and size of the relevant population.[14] Thus, for Medicare and Medicaid, CBO excludes the effect of increases in the number of beneficiaries in the programs. For Medicare and for the overall growth of health care spending, it also removes the effect of changes in the age composition of the population.[15] For Medicaid, CBO removes the effect of changes in the composition of the program's caseload—that is, changes in the portions of beneficiaries who are children, disabled people, elderly people, and other adults.[16]

From 1975 to 2007, overall excess cost growth amounted to 1.9 percentage points. That measure captures the growth of total spending for health care, including payments from all private and public sources. As shown in Table 2-3, excess cost growth during that period was 2.3 percentage points for Medicare, 1.9 percentage points for Medicaid, and 1.8 percentage points for all other health care spending (that is, spending by the private sector and by federal, state, and local governments for health care programs other than Medicare and Medicaid).

The rate of overall excess cost growth was faster during the earlier part of the 1975–2007 period and slower during the second half, averaging 2.6 percentage points from 1975 to 1990 but only 1.4 percentage points from 1990 through 2007. Since 1993, overall excess cost growth

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14. For details of CBO's computations of excess cost growth, see Congressional Budget Office, "Computing Historical Excess Cost Growth," Appendix B of *The Long-Term Outlook for Health Care Spending* (November 2007).

15. In contrast, for its projections of Medicare's spending, CBO takes into account the projected life expectancy (time until death) of beneficiaries as well as their age and sex. For details, see John Sabelhaus, Michael Simpson, and Julie Topoleski, *Incorporating Longevity Effects into Long-Term Medicare Projections,* Congressional Budget Office Technical Paper 2004-02 (January 2004).

16. That methodology for Medicaid is consistent with the way CBO projects its spending, in that CBO separately accounts for projected changes in the numbers of different types of beneficiaries. The introduction of Medicare's Part D drug benefit in 2006 resulted in a one-time shift in some spending from Medicaid to Medicare. To adjust for that shift, CBO set excess cost growth in 2006 for both Medicare and Medicaid to equal the average of excess cost growth in the two programs for that year.

**Table 2-3.**

## Excess Cost Growth in Spending for Health Care

(Percentage points)

|  | Medicare | Medicaid | All Other | Total |
|---|---|---|---|---|
| 1975 to 1990 | 2.9 | 3.2 | 2.3 | 2.6 |
| 1990 to 2007 | 1.7 | 0.8 | 1.3 | 1.4 |
| 1975 to 2007 | 2.3 | 1.9 | 1.8 | 1.9 |

Source:   Congressional Budget Office.

Note:   Excess cost growth refers to the number of percentage points by which the growth of spending for Medicare or Medicaid, or for all other health care (per beneficiary or per capita), exceeded the growth of nominal gross domestic product (per capita).

exceeded 1 percentage point only from 2001 through 2003. (During that three-year period, it averaged 4.4 percentage points.) It is difficult to determine, however, to what extent the slower growth experienced in the past 15 years or so reflects one-time changes (for instance, the spread of managed care) and to what extent the underlying trend has changed. Another consideration is that rates of excess cost growth in the Medicare and Medicaid programs are driven partly by changes in law and policy, which have expanded the programs and tried to limit the growth of their costs. Most notably, in 1983, Medicare implemented a prospective payment system under which hospitals are paid a predetermined rate for each admission, an approach that has reduced some of the program's costs.

## Long-Term Projections of Spending for Medicare and Medicaid

In the absence of an unprecedented change in long-term trends, spending for health care will grow substantially over the coming decades. CBO's long-term projections (covering 2009 to 2083) provide a useful measure of the scope of the potential problem posed by rising health care costs. In reality, however, federal law will change in the future, ensuring that the basis for the projections will turn out not to be correct. Moreover, the projections are subject to the inherent uncertainty surrounding any long-term estimates, especially those that apply to health care.[17]

To estimate the federal government's net long-term spending for Medicare and Medicaid, CBO first projects total spending for the two programs and then subtracts the nonfederal components—for Medicare, the premiums paid by beneficiaries and amounts paid by the states from savings on prescription drug costs in the Medicaid program; and for Medicaid, the amount of states' spending. In its projections, CBO calculates premiums for Medicare as a flat percentage of gross spending for Part B and Part D and holds constant the share of Medicaid's spending paid for by the states. (CBO uses the typical average share of 57 percent for projections over the long term after expiration of the temporary increase enacted in the American Recovery and Reinvestment Act of 2009.) Spending for Medicare and Medicaid beneficiaries that is not financed through the programs, such as out-of-pocket payments and payments resulting from individually purchased medigap insurance, is not federal spending, so it is included instead in the category of other health care spending.

CBO's long-term projections show spending for health care, including federal spending for Medicare and Medicaid, under the two budget scenarios discussed in Chapter 1:

■ The *extended-baseline scenario*, which incorporates the assumption that current law does not change. For Medicare, that assumption means that the existing formula for determining the payment rates for physicians (the "sustainable growth rate" formula) will continue to apply and will necessitate large reductions in those payments over the next several years.

■ The *alternative fiscal scenario*, which incorporates the assumption that both programs continue to operate as under current law—except that Medicare's payment rates for physicians will grow with inflation. (For those calculations, CBO uses the Medicare economic index, which measures inflation in the "inputs"—primarily compensation for physicians and other workers—that providers use to produce medical services.)

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17. For the sake of simplicity, CBO assumed that the projected growth of health care spending would have no effect on the future growth of GDP.

**Table 2-4.**

# Assumptions About Excess Cost Growth in Spending for Health Care Over the Long Term

(Percentage points)

|  | Rate in 2020 (Historical Average, 1975–2007) | Annual Decline in Rate, 2020–2083 (Percent) | Average Rate, 2020–2083 | Rate in 2083 |
|---|---|---|---|---|
| Medicare | 2.3 | 1.5 | 1.5 | 0.9 |
| Medicaid | 1.9 | 4.5 | 0.6 | 0.1 |
| All Other Spending for Health Care | 1.8 | 4.5 | 0.5 | 0.1 |

Source: Congressional Budget Office.

Note: Excess cost growth refers to the number of percentage points by which the growth of spending for Medicare or Medicaid, or for all other health care (per beneficiary or per capita), exceeded the growth of nominal gross domestic product (per capita).

CBO assumed that under both scenarios, Medicare benefits would continue to be paid in full regardless of the financial status of the Hospital Insurance Trust Fund.[18]

Projected spending for Medicare under the alternative fiscal scenario is slightly greater than under the extended-baseline scenario, but the difference is small. Projected health care spending other than that for Medicare—including federal spending for Medicaid—differs only slightly under the two scenarios. In CBO's projections, both Medicare premiums and out-of-pocket spending by Medicare beneficiaries are set equal to a fixed percentage of Medicare's costs, so they are slightly higher under the alternative fiscal scenario. However, because most premiums are paid by individuals, they are a component of other health care spending, as are out-of-pocket costs. Medicaid pays for a small portion of the premiums for Medicare.

**Underlying Assumptions for CBO's Projections of Health Care Spending**

CBO's approach to developing its long-term estimates differs for the first 10 years of the projection period—2009 to 2019—from its treatment of the later years. For that initial 10-year span, CBO set its projections of

spending for Medicare and Medicaid under the extended-baseline scenario to match those in its March 2009 budget outlook.[19] The March projections were based on a detailed analysis of each program rather than on the simpler approach that CBO used for its longer-term projections. Under the alternative fiscal scenario, CBO's projections of outlays beginning in 2010 are slightly higher than under the extended-baseline scenario.

For its projections covering 2020 to 2083, CBO combined assumptions about excess cost growth in health care spending with projections of the growth and aging of the population and the growth of per capita GDP. CBO assumed that in 2020, the rate of excess cost growth for Medicare would be 2.3 percentage points and the rate for Medicaid, 1.9 percentage points—the average excess cost growth rates for the programs from 1975 to 2007 (see Table 2-4). The rate for all other health care spending from 2009 through 2020 was assumed to equal its historical average of 1.8 percentage points.

CBO assumed that in later years of the 2020–2083 period, even in the absence of changes in federal law, excess cost growth would slow. As health care expenditures continued to increase as a share of GDP, they would disproportionately absorb people's income, allowing only slow growth in the consumption of goods and services besides health care. As a result, pressure to slow the growth of costs would mount as health care accounted for

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18. CBO assumed that future Medicare spending would not be affected by the provision of current law that requires the Medicare trustees to issue a "Medicare funding warning" if projected outlays for the program exceed 45 percent of "dedicated financing sources"—because the law does not require the Congress to respond to such a warning by enacting legislation that would reduce Medicare spending.

19. See Congressional Budget Office, *A Preliminary Analysis of the President's Budget and an Update of CBO's Budget and Economic Outlook* (March 2009).

a larger and larger share of the American economy. The private sector and state governments would probably respond by instituting various changes. Employers would quite likely intensify their efforts to reduce the costs of the plans they sponsored—for example, by working with insurers to make health care more efficient or by reducing insurance coverage. Insurers would also probably raise premiums and increase out-of-pocket charges. Employees would then react to the higher charges either by shifting to plans with lower premiums—and more restrictive coverage or benefits management—or by directly limiting their consumption of health care in response to their higher out-of-pocket spending.[20]

It is impossible to predict with any confidence how such a process would unfold and how much cost growth might slow. One simple and transparent approach is to set a path of excess cost growth that is consistent with a rule about patterns of households' consumption. For the projections laid out in CBO's December 2007 *The Long-Term Budget Outlook*, CBO assumed that within the projection period considered in that report (2008 to 2082), households overall would be unwilling to spend so much more on health care that, from one year to the next, the increase in such spending alone was greater than the total increase in consumption. Specifically, CBO assumed that excess cost growth would decline smoothly, beginning in the 12th year of the projection period, to such an extent that by the end of the 75-year period, per capita expenditures on items besides health care would be stable. Under that assumption, total spending per capita would always increase from one year to the next, but in the last year of the projection period, the entire increase would be devoted to health care.

In the absence of fundamental changes in the health care sector since the 2007 report was published, CBO assumed for this report that the rate of excess cost growth for other health care spending in 2083 (the last year of the current 75-year projection period) would be 0.1 percentage point, the rate used for the last year covered by the 2007 report. As described in more detail below, CBO combined that assumption with assumptions about the relationships between the excess cost growth rates for Medicare, Medicaid, and other health care spending to

determine the cost growth rates for Medicare and Medicaid and thus the growth of total health care spending.

If the slowdown in excess cost growth that CBO incorporated in its projections did occur, it would not be painless. Households would probably face increased cost sharing; new and potentially useful health technologies would probably be introduced more slowly or be used less frequently than they would without a slowdown in excess cost growth; and more treatments or interventions might simply not be covered by insurance. State governments would probably respond to growing costs for Medicaid by limiting the services they chose to cover or by tightening eligibility to reduce the number of their beneficiaries. Nevertheless, Americans would still face steadily increasing costs for health care. In other words, even though the rate of growth might decline, the real, or inflation-adjusted, level of health care costs would continue to rise.

A slowdown in the growth of health care spending might be particularly difficult to achieve in the absence of changes in federal law—the basic assumption underlying CBO's projections. But at some point, financial pressures would become so severe that measures to curb spending growth would be taken. Because state governments and the private sector would have more flexibility to respond to those pressures than would the federal government without statutory changes, CBO assumed that excess cost growth in Medicaid's spending and in non-Medicaid, non-Medicare spending would each slow at the same rate and would slow more than Medicare's spending. (Because the federal government's spending for Medicaid depends on what the states each spend, actions by the states that reduced the growth of their Medicaid spending would also slow the growth of federal spending for the program.)

Still, a slowdown in spending growth would affect Medicare, which is integrated to a significant degree with the rest of the health care system. To the extent that actions by individuals, businesses, and states resulted in lower-cost "patterns of practice" by physicians, slower development and diffusion of new technologies, and cost-reducing changes to the structure of the overall health care system, Medicare would experience some reduction in cost growth. In particular, CBO assumed that the federal government would make regulatory changes aimed at slowing the growth of spending for Medicare (and Medicaid) and that the demand for health care services by Medicare beneficiaries would decline as the program's

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20. For its projections, CBO assumed that the share of health care spending constituting premiums for employment-based plans—which receives preferential tax treatment—would be a constant percentage of non-Medicare, non-Medicaid health care spending.

increased premiums and cost-sharing amounts consumed a growing share of beneficiaries' income.

Thus, on the basis of its own analysis and discussions with outside health policy experts, CBO assumed that without changes in federal law, the combined effects of those factors would be to reduce Medicare's excess cost growth by one-third of the reduction that took place in the growth of non-Medicare spending. In other words, under a scenario in which the rate of growth of health care spending outside that of Medicare declined from 2.0 percent to 1.0 percent annually, Medicare's spending growth would decline from 2.0 percent to about 1.7 percent per year. Therefore, if federal law remained unchanged, the growth of spending for Medicare could continue to outpace the overall growth of health care spending.

In summary, CBO's methodology for its projections of health care spending is based on the following set of assumptions:

■ Spending for Medicare and Medicaid from 2009 through 2019 under the extended-baseline scenario equals the projections in CBO's March 2009 budget outlook, whereas projections of spending for the programs under the alternative fiscal scenario are slightly higher.[21]

■ In 2020, excess cost growth in spending for Medicare and for Medicaid is equal to the programs' average historical cost growth of 2.3 percentage points and 1.9 percentage points, respectively.

■ From 2009 through 2020, excess cost growth in all other spending for health care is equal to its historical average of 1.8 percentage points.

■ Excess cost growth in all three categories—Medicare, Medicaid, and other health spending—slows beginning in 2021.

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21. For the alternative fiscal scenario, CBO used the option titled "MEI [Medicare economic index] Update Through at Least 2019,"option, which is described in "Estimated Changes in Net Federal Outlays from Alternative Proposals for Changing Physician Payment Rates," www.cbo.gov/budget/factsheets/2009b/health2.pdf.

■ The slowdown in Medicare's spending is one-third the rate of the slowdown in non-Medicare spending.

■ Excess cost growth for other (non-Medicare, non-Medicaid) health spending declines from 1.8 percentage points in 2020 to 0.1 percentage point in 2083.

■ Under those assumptions, the rate of excess cost growth for Medicare drops from 2.3 percentage points in 2020 to 0.9 percentage points in 2083 and the rate for Medicaid falls from 1.9 percentage points to 0.1 percentage point (see Table 2-4 on page 28).

■ As a result of the assumptions about excess cost growth, average excess growth for all health care spending declines from 1.9 percentage points in 2020 to 0.4 percentage points in 2083, averaging 0.8 percent over that period.

It may be difficult to envision how excess cost growth in Medicare's spending could continually outstrip spending for Medicaid and other health care over such a long period. Theoretically, actions to reduce spending growth in the private sector could weaken the incentives to develop and diffuse new medical technologies for nonelderly people yet have little effect on new technologies focused on diseases that principally affect the elderly. In reality, such a variance is unlikely to persist. Changes in federal statutes are probably necessary to ensure that spending for Medicare does not diverge excessively from overall health spending.

### Projections of Health Care Spending

Over the past 30 years, total spending for health care has more than doubled as a share of GDP. According to CBO's projections, under the extended-baseline scenario, that share will double again by 2035, to 31 percent of GDP. Thereafter, health care costs will continue to account for a steadily growing share of the economy, reaching 37 percent of GDP by 2050 and 46 percent by 2080 (see Figure 2-1).

CBO projects that in 2009, Medicare's and Medicaid's total spending will each be about 3 percent of GDP. By 2035, spending for Medicare will have more than doubled, in CBO's estimation, to 8 percent; by 2080, it will have grown to 15 percent. CBO projects that the growth of spending for Medicaid will be slower than Medicare's spending growth, because it assumes that the rate of

**Figure 2-1.**

# Total Spending for Health Care Under CBO's Extended-Baseline Scenario

(Percentage of gross domestic product)
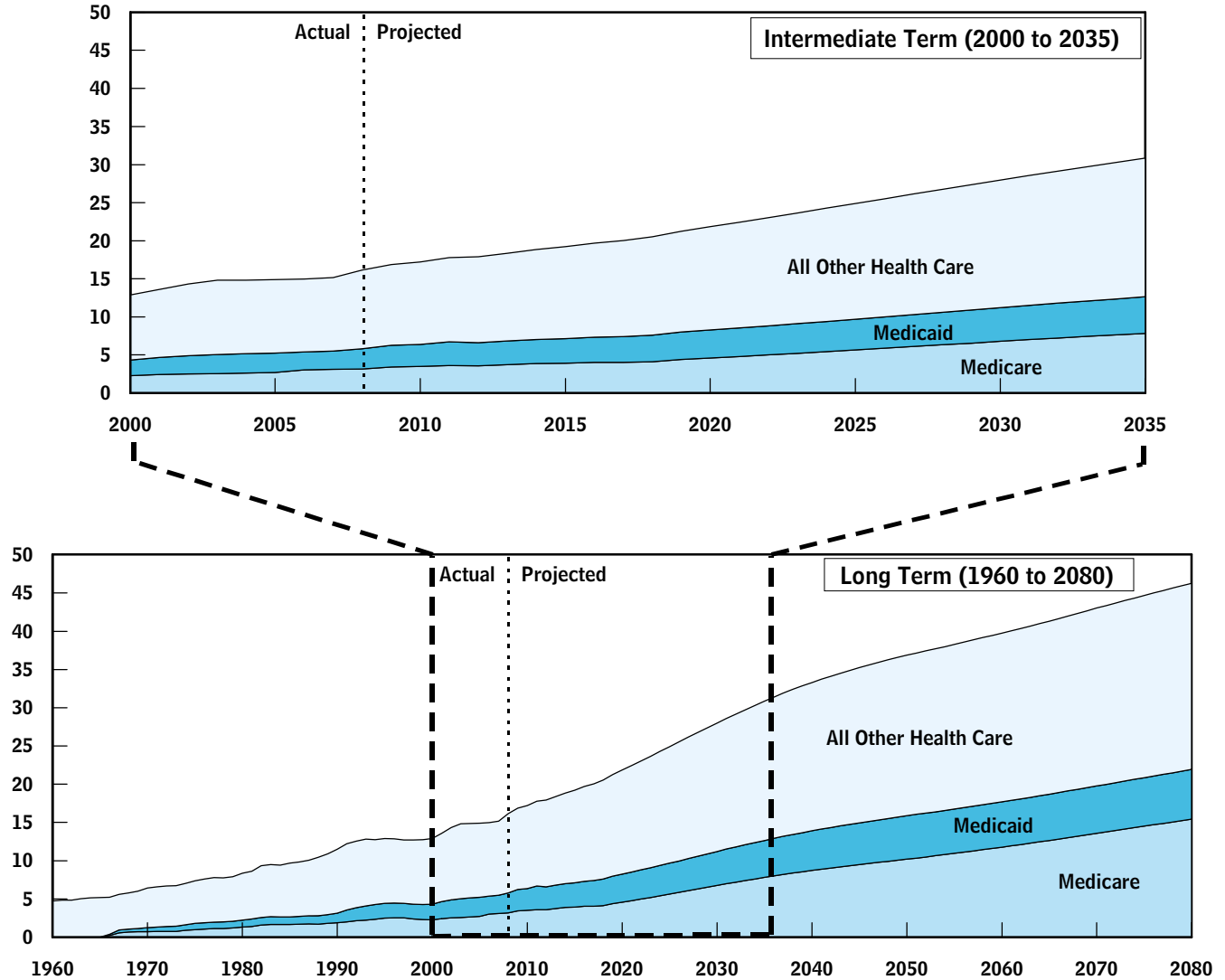


Source:   Congressional Budget Office.

Notes:  Total spending for health care comprises spending for health services and supplies as defined in the national health expenditure accounts maintained by the Centers for Medicare and Medicaid Services. Amounts for Medicare include beneficiaries' premiums and amounts paid by the states representing part of their share of the savings from shifting some Medicaid spending for prescription drugs to Part D of Medicare. Amounts for Medicaid include spending by states.

The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period.

**Figure 2-2.**

## Total Health and Nonhealth Spending Per Capita Under CBO's Extended-Baseline Scenario

(Thousands of 2009 dollars)



Source: Congressional Budget Office.

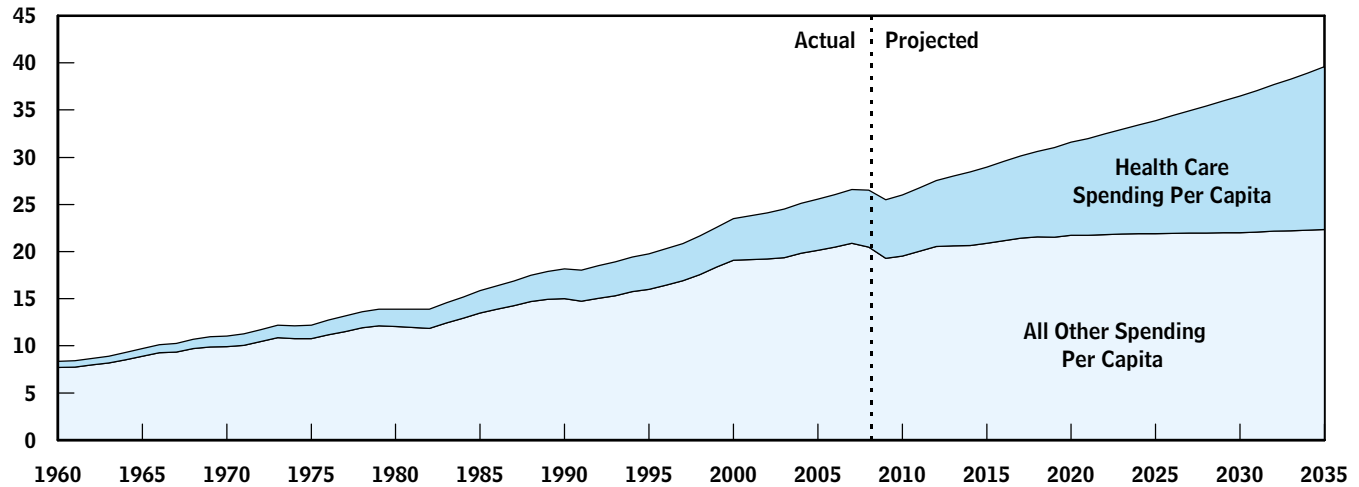Notes: Total spending is equal to the sum of personal and government consumption as defined by the Bureau of Economic Analysis. Total spending for health care comprises spending for health services and supplies as defined in the national health expenditure accounts maintained by the Centers for Medicare and Medicaid Services.

The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period.

excess cost growth will be lower and that the aging of the population will affect Medicaid to a lesser extent than it does Medicare. CBO estimates that total spending for Medicaid will grow to 5 percent of GDP by 2035 and 7 percent by 2080.

Although the *rate* of cost growth is projected to slow over the 2009–2083 period, the annual increase in the *level* of spending is expected to remain high. For example, for the five years beginning in 2015, CBO projects that total health care spending under the extended-baseline scenario will increase from 19.2 percent of GDP to 21.8 percent. For another five-year period, from 2035 to 2040, CBO projects that health care spending will rise from 30.8 percent of GDP to 33.3 percent. From one perspective, the percentage change during the latter period is much slower—8 percent rather than 14 percent. But in both periods, health care spending increases by about 2.5 percent of GDP.

CBO projects that over the next 75 years, total spending for Medicare and Medicaid will account for a growing share of total health care spending—because the assumed

rates of excess cost growth for Medicare will slow less quickly than will the rate for other health care spending and because a larger share of the population will be older than 65. In 2009, total spending for Medicare and Medicaid is projected to make up 37 percent of total health care spending. CBO projects that under the extended-baseline scenario, that ratio will grow to 41 percent by 2035 and to nearly half of all health care spending by 2080.

As a result of the relatively fast growth projected for total Medicare and Medicaid spending, net federal health care spending over the coming decades—that is, spending for Medicare excluding beneficiaries' premiums and amounts paid by the states from prescription drug savings for Medicaid, together with the federal share of Medicaid's spending—will also make up a larger share of total spending for health care. The federal share will increase from 29 percent in 2009 to about 31 percent in 2035 and to 37 percent in 2080. As a share of GDP, federal spending for Medicare and Medicaid will grow from 5 percent in 2009 to 10 percent in 2035 and to 17 percent in 2080.

In CBO's projections, federal outlays under the alternative fiscal scenario would be slightly higher than under the extended-baseline scenario. The small difference arises because the alternative fiscal scenario's assumption that Medicare's physician fees are updated to account for inflation has a minor effect over the long term: Throughout the projection period, outlays under the two scenarios differ by less than 1 percent of GDP.

## How Rising Health Care Costs Would Affect Other Consumption

Historically, economic growth has been driven primarily by improved productivity. As the average worker is able to produce more, the average citizen can consume more. As the population ages and a smaller portion of it is employed, per capita GDP is likely to grow more slowly, but, on average, future generations will be substantially richer than Americans are today. In 2009, total consumption per person is expected to average about $26,000, of which about $6,000 will be spent on health care. Under CBO's projections, spending per person by 2035 would have grown by more than $14,000 (in 2009 dollars), but more than 80 percent of that extra money would be spent on health care. Although spending for other goods and services would grow by just 14 percent, spending for health care would nearly triple (see Figure 2-2).

In addition, although the consumption of goods and services besides health care would, on average, be stable at the end of the projection period, the effect would vary for different individuals. Lower-income people tend to spend less than the average amount for health care, but that spending represents a larger portion of their earnings than it does for others. Also, people generally have less flexibility in their spending for health care than in their consumption of other things. For example, even in companies that offer multiple options for health insurance, premiums do not vary substantially. Consequently, as costs for health care increased, higher-income people would generally still be able to increase their consumption of other goods and services, whereas poorer people would probably see their spending for those items decline.[22]

## Projections Under Alternative Assumptions

Although all long-term economic and demographic trends are difficult to forecast and thus uncertain, future

excess cost growth in health care spending during the next century may be particularly so. Systems of health care and health care financing have existed in their current forms for only a few decades, and medical technology continues to evolve rapidly. The projections in this report will undoubtedly prove to be inaccurate in one direction or another. And judging their accuracy will be difficult even after the fact, because they assume no changes in federal law and such changes are virtually certain to occur.

Even without policy changes, though, actual spending for health care could be much lower or much higher than in CBO's and other forecasters' projections. In the past, technological developments have generally resulted in the expansion of treatment options and greater total spending. Future innovations could accelerate that trend. Alternatively, if future research resulted in the development of inexpensive curative therapies or if the health care sector changed in other fundamental ways, growth could slow.

For comparison purposes, CBO projected federal spending for Medicare and Medicaid under varying assumptions about excess cost growth. A projection for which such growth is held constant at zero, although implausible, is useful because it isolates the effect of the aging of the population (see Figure 2-3). Under such a scenario of zero excess cost growth, projected net federal outlays for the two programs would increase from 5 percent of GDP in 2009 to almost 7 percent by 2035; outlays would then rise gradually to slightly more than 7 percent of GDP by 2080. Under a scenario in which excess cost growth was 2.5 percentage points—or roughly the average rate of growth during the 1980s—net federal spending for the two programs would grow to 12 percent of GDP by 2035 and to 41 percent by 2080.

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22. For example, consider the simplified example of two coworkers with incomes of $20,000 and $80,000 who both get a 10 percent salary increase and devote their extra income to an increase of $5,000 in health insurance premiums. The lower earner's income would increase by $2,000, but his or her health care costs would be $3,000 higher than that, forcing a real reduction in his or her consumption of other goods and services. The higher earner's income would increase by $8,000, more than enough to cover the additional $5,000 in health care expenses.

**Figure 2-3.**

## Federal Spending for Medicare and Medicaid Under Different Assumptions About Excess Cost Growth, 2009 to 2080

(Percentage of gross domestic product)
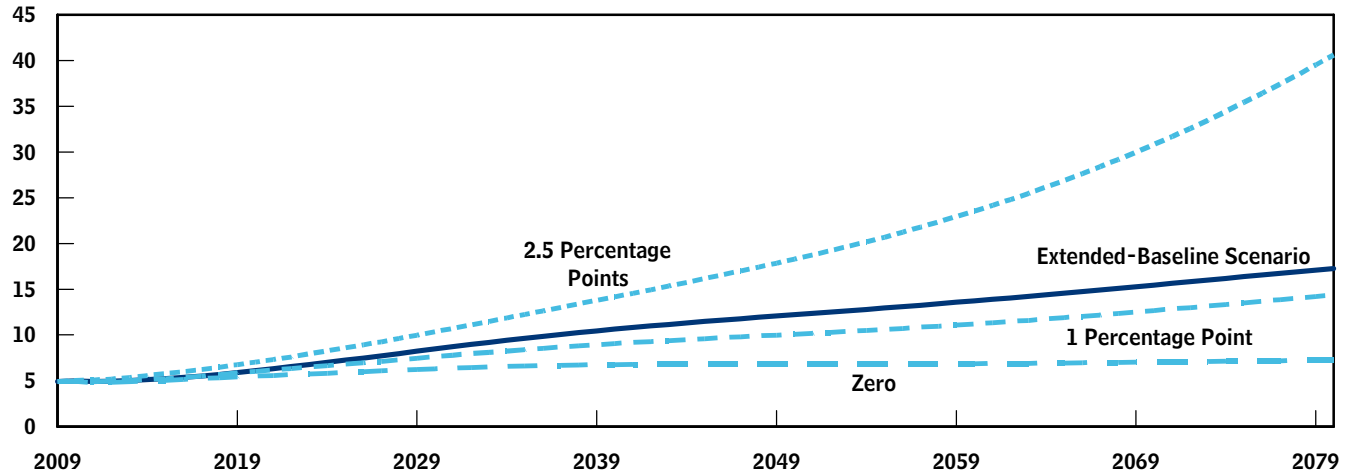


Source: Congressional Budget Office.

Notes: Excess cost growth refers to the number of percentage points by which the growth of annual health care spending per beneficiary is assumed to exceed the growth of nominal gross domestic product per capita.

The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period.

### Trust Fund Measures

Projections of the balances in the Hospital Insurance Trust Fund offer another way to look at the sustainability of Part A of Medicare.[23] A commonly used measure is the actuarial balance—that is, the present value of revenues plus the trust fund balance minus the present value of outlays over a specified period (the present value is a single number that expresses a flow of current and future income or payments in terms of an equivalent lump sum received or paid today). That difference is shown as a percentage of the present value of taxable payroll over the same period.[24] (To account for the difference between the trust fund's current balance and the desired balance at the end of the period, the balance at the beginning of the period is added to the projected revenues, and an additional year of costs at the end of the period is added to projected outlays.)

A negative actuarial balance represents the amount by which revenues as a percentage of taxable payroll (the income rate) could be increased immediately and in every year of the projection period to cover all projected costs and provide the desired balance in the trust fund at the end of the period. (Alternatively, outlays as a percentage of taxable payroll could be reduced by an equivalent amount.) The income-rate increase required to meet that goal would be 6.1 percentage points, which is the difference between projected income equal to 3.6 percent of taxable payroll and projected costs totaling 9.7 percent of taxable payroll (see Table 2-5). For example, one way to increase revenues by that amount would be to increase the HI payroll tax rate from its current 2.9 percent to 9.0 percent. In the nearer term, the required income-rate increases would be smaller: for a 25-year projection period, 1.3 percentage points; for a 50-year period, 4.3 percentage points.

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23. A more comprehensive measure would be preferable. However, Medicare spending outside of Part A does not have dedicated taxes, and as a result, constructing a summarized measure for the program as a whole would be complicated by the difficulty of incorporating general revenues in the calculations.

24. Another commonly used metric is the trust fund exhaustion date. CBO projects that the HI trust fund will become exhausted in fiscal year 2017. For its projections of the fund's outlays, however, CBO assumed that even after the fund was exhausted, benefits would be paid as scheduled.

**Table 2-5.**

## Summarized Measures for Medicare's Hospital Insurance Trust Fund

(Percentage of taxable payroll)

| Projection Period | Income Rate | Cost Rate | Actuarial Balance |
|---|---|---|---|
| 25 Years (2009 to 2033) | 4.3 | 5.6 | -1.3 |
| 50 Years (2009 to 2058) | 3.6 | 7.8 | -4.3 |
| 75 Years (2009 to 2083) | 3.6 | 9.7 | -6.1 |

Source:   Congressional Budget Office.

Note:   The income and cost rates are the present values of annual revenues and costs over the relevant time period divided by the present value of taxable payroll over that period (after adjustments for the initial trust fund balance and target balance at the end of the relevant time period). The actuarial balance is the present value of revenues minus the present value of costs divided by the present value of taxable payroll over that period.

The actuarial measures presented here can be compared with the Medicare trustees' projections for the HI trust fund.[25] CBO and the trustees both project that the trust fund will fail to achieve the target trust fund balance (one year's worth of outlays) by the end of the 75-year projection period. The trustees estimate that an income-rate increase of 3.9 percentage points would be necessary, a rate more than 2 percentage points lower than CBO's projection. The difference arises largely because the trustees assume a lower rate of excess cost growth. In particular, they assume that such growth will decline gradually from the 25th through the 75th year of the projection period so as to produce a 75-year (2009 to 2083) actuarial balance that is consistent with one generated by using an excess cost growth assumption of 1 percentage point for each year.

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25. See Department of Health and Human Services, Centers for Medicare and Medicaid Services, Office of the Actuary, *2009 Annual Report of the Board of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds* (May 12, 2009), p. 65. These numbers refer to the trustees' intermediate projections; the trustees also produce low-cost and high-cost alternatives.

## Slowing the Growth of Health Care Costs

The analysis underlying some of CBO's long-term projections—those made under the extended-baseline scenario—by design keeps federal law unchanged. (By contrast, projections under the alternative fiscal scenario incorporate a change to Medicare law regarding payment rates for physicians' services.) However, current law leads to unsustainable outcomes for the federal budget and the overall health care system. In December 2008, CBO released two volumes that are intended to assist the Congress as it contemplates possible changes—both large and small—to federal health programs and the nation's health insurance and health care systems:

■ *Key Issues in Analyzing Major Health Insurance Proposals* provides extensive background information and explains how CBO would approach the analysis of numerous issues that could arise as the Congress seeks to enact major changes in the health insurance system. Because such proposals generally focus on options for providing coverage to and reducing costs for the nonelderly population, their direct effects on federal health care spending would probably be through changes to Medicaid. Even so, options that would reduce spending for Medicare could be used to offset the federal government's costs for expanding health insurance coverage and could have broad effects on overall health care spending.

■ *Budget Options, Volume 1: Health Care* presents 115 discrete options that encompass a broad array of issues related to the financing and delivery of health care. The volume includes some options that would reduce spending and others that would increase it together with changes that would reduce or raise revenues. Chapters specifically related to federal spending for health care include those on changes in the availability of health insurance that could be carried out through existing federal programs, the quality and efficiency of health care, the financing of and payments for services provided by Medicaid and the Children's Health Insurance Program, premiums and cost sharing in federal health care programs, and options for closing the gap between Medicare's spending and its receipts.

# The Long-Term Outlook for Social Security

**S**ocial Security is the federal government's largest nondefense program. Created in 1935, the program now consists of two parts: Old-Age and Survivors Insurance pays benefits to retired workers and to their dependents and survivors; and Disability Insurance (DI) makes payments to disabled workers who are younger than the normal retirement age and to their dependents. In all, about 52 million people are receiving Social Security benefits. The Congressional Budget Office projects that outlays for that program in fiscal year 2009 will total $670 billion, or roughly one-sixth of the federal budget.

During the program's first four decades, spending for Social Security steadily increased relative to the size of the economy, reaching about 4 percent of gross domestic product in the mid-1970s. That increase was driven largely by repeated expansions of the program. The costs spiked up to nearly 5 percent of GDP in the early 1980s, a period that coincided with the last major piece of Social Security legislation. Since then, spending for Social Security has fluctuated between 4.2 percent and 4.6 percent of GDP, accounting for 4.3 percent of GDP in fiscal year 2008 (see Figure 3-1). CBO projects that spending for this program will grow to almost 5 percent of GDP this year as outlays increase and GDP contracts. CBO anticipates that spending for Social Security will reach 6.0 percent of GDP by 2035 and remain close to that figure in succeeding decades.

## How Social Security Works

In general, workers are eligible for retirement benefits if they are age 62 or older and have paid sufficient Social Security taxes for at least 10 years.[1] Workers whose employment has been limited because of a physical or mental disability can become eligible for DI benefits at an earlier age and, in many cases, with a shorter employment history. Various rules for determining eligibility and benefit amounts apply to family members of retired, disabled, or deceased workers.

When retired or disabled workers first claim Social Security benefits, the initial payments they receive are based on their average lifetime earnings. The formula used to translate average earnings into benefits is progressive; that is, it replaces a larger share of preretirement earnings for people with lower average earnings than it does for people with higher earnings. The benefit formula and individuals' earnings histories are indexed to changes in average annual earnings for the labor force as a whole.[2] Because average national earnings generally grow at a faster rate than does inflation, that indexation causes initial benefits for future recipients to grow in real (inflation-adjusted) terms. Benefits are also subsequently adjusted to reflect annual changes in consumer prices.

For retirement benefits, a final adjustment is made on the basis of the age at which a recipient chooses to start claiming benefits: The longer a person waits (up to age 70), the higher the benefits will be. That final adjustment is intended to be "actuarially fair," so that an individual's total lifetime benefits will have an approximately equal value regardless of when he or she begins collecting them.

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1. Most workers need to earn 40 credits (or quarters) to be eligible for retirement benefits. They can earn up to four credits a year on the basis of the amount they earned in employment covered by Social Security. In 2009, one credit is earned for each $1,090 in wages. Thus, workers earning at least $4,360 this year will receive four credits.

2. For a more detailed description of that formula and of the rules for determining eligibility and amounts for other types of Social Security benefits, see Congressional Budget Office, *Social Security: A Primer* (September 2001), Chapter 2.

**Figure 3-1.**

# Spending for Social Security, 1962 to 2080

(Percentage of gross domestic product)
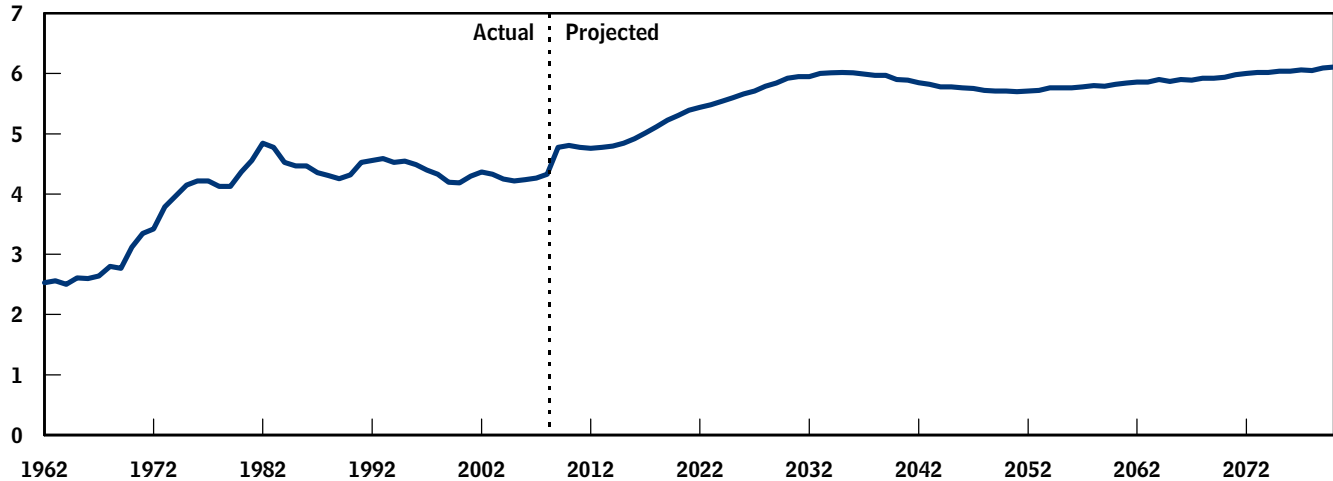


Source:    Congressional Budget Office.

For workers born before 1938, the age of eligibility for full retirement benefits—referred to as Social Security's normal retirement age—is 65. Under current law, that age is gradually increasing and will be 67 for people born in 1960 or later. Specifically, the normal retirement age rose by two months per birth year for people born between 1938 and 1943, remains at 66 for those born between 1944 and 1954, and then begins to increase again by two months per birth year for people born between 1955 and 1960. The age at which workers may start receiving reduced benefits—age 62—remains the same.

The Social Security Administration estimates that workers who retire at age 65 in 2009 and who had average annual earnings throughout their career will be eligible for an annual benefit of almost $17,000. That amount will replace about 40 percent of their preretirement earnings. In later decades, the replacement rate will be lower for workers with average earnings who retire at age 65, mainly because of the scheduled increase in the normal retirement age. Nevertheless, initial benefits are indexed to average wages, which grow over time, and the real value of those benefits will therefore continue to rise.

Although Social Security is commonly thought of as a retirement program, it also provides other types of benefits. Indeed, only about 64 percent of its beneficiaries

receive their payments as retired workers (see Figure 3-2). As of April 2009, 15 percent of beneficiaries were disabled workers, 13 percent were survivors of deceased workers, and the remaining 9 percent were spouses or children of retired or disabled workers.

The Social Security program has two sources of dedicated tax revenues. The main source is a payroll tax of 12.4 percent of earnings, split evenly by workers and their employers. Only earnings up to a maximum annual amount ($106,800 in 2009) are subject to the payroll tax. That amount—the taxable earnings base—is adjusted each year for changes in average earnings in the U.S. economy unless the cost-of-living adjustment is zero, in which case it remains unchanged.[3] The other, smaller source, which was equal to about 3 percent of payroll tax revenues in 2008, is the income taxes that higher-income beneficiaries pay on their benefits. Revenues from both sources, along with intragovernmental interest payments, are credited to the program's trust funds. Social Security benefits, the program's administrative costs, and other authorized expenditures are paid from those funds.

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3. CBO projects that there will be no cost-of-living adjustments from 2010 through 2012; see Congressional Budget Office, *A Preliminary Analysis of the President's Budget and an Update of CBO's Budget and Economic Outlook* (March 2009), p. 8.

## Figure 3-2.

## Distribution of Social Security Beneficiaries, by Type of Benefits Received, April 2009
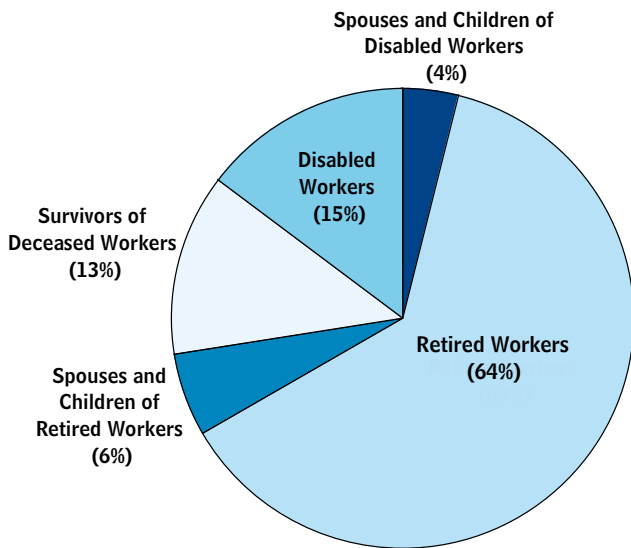


Source:    Congressional Budget Office based on Social Security Administration, "Monthly Statistical Snapshot, April 2009," Table 2.

## The Outlook for Social Security Spending and Revenues

The cost of the Social Security program will rise noticeably in coming decades—a change that has long been foreseen. Average benefits typically grow when the economy does, because the earnings on which those benefits are based increase.[4] In the future, however, changes in the nation's demographic structure will cause the total amount of scheduled benefits to grow faster than the economy. As the baby-boom generation reaches retirement age, and as decreasing mortality leads to longer lives and longer retirements, a larger share of the population will draw Social Security benefits.[5]

The number of people age 65 or older will grow by 90 percent by 2035, compared with growth of just 12 percent for those ages 20 to 64, CBO projects. As a result, by 2035, the older population is likely to be more than one-third the size of the younger group, compared with one-fifth today (see Figure 3-3). About 92 million people will be collecting Social Security benefits in 2035, CBO projects, compared with about 52 million today. Furthermore, the average benefit will have grown nearly as fast as per capita GDP. CBO therefore estimates that unless changes are made to Social Security, spending for the program will rise from 4.3 percent of GDP in fiscal year 2008 to 6.0 percent by 2035. Spending for Social Security will dip slightly as members of the large baby-boom generation die, but it will then resume its upward course because of increasing longevity, reaching 6.1 percent of GDP in 2080.[6]

CBO's revenue projections differ slightly under the two scenarios discussed in Chapter 1: the **extended-baseline scenario**, which incorporates the assumption of no change in current law, and the **alternative fiscal scenario**, which incorporates changes in policy that are widely expected to occur and that policymakers have regularly made in the past. Under the latter scenario, none of the currently scheduled changes to tax law (for example, the expiration at the end of 2010 of the tax changes enacted in 2001 and 2003) would take effect, and the alternative minimum tax would be indexed to inflation. As a result, individual income tax rates (and thus revenues to Social Security from income taxes on benefits) are lower under the alternative fiscal scenario—and the projections of Social Security's finances are somewhat less favorable—than under the extended-baseline scenario. (Projections of Social Security outlays and of the revenues the program is likely to receive from payroll taxes are identical under the two scenarios.)

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4.   CBO projects that continuing rapid growth in health care costs will reduce the portion of compensation that workers receive in wages subject to the Social Security payroll tax. That development will reduce growth in Social Security benefits as a percentage of GDP and growth in receipts from Social Security taxes below what such growth would otherwise have been.

5.   Expectations for the baby boomers' retirement are summarized in Congressional Budget Office, *The Retirement Prospects of the Baby Boomers*, Issue Brief (March 18, 2004); for details, see Congressional Budget Office, *Baby Boomers' Retirement Prospects: An Overview* (November 2003).

6.   For details on CBO's methodology for projecting Social Security's revenues and outlays, see *Updated Long-Term Projections for Social Security* (August 2008). For a more general discussion of how the Social Security program works and how changes to it might affect the nation's ability to deal with impending demographic shifts, see Congressional Budget Office, *Social Security: A Primer*.

**Figure 3-3.**

## The Population Age 65 or Older as a Percentage of the Population Ages 20 to 64, 1962 to 2080

(Percent)
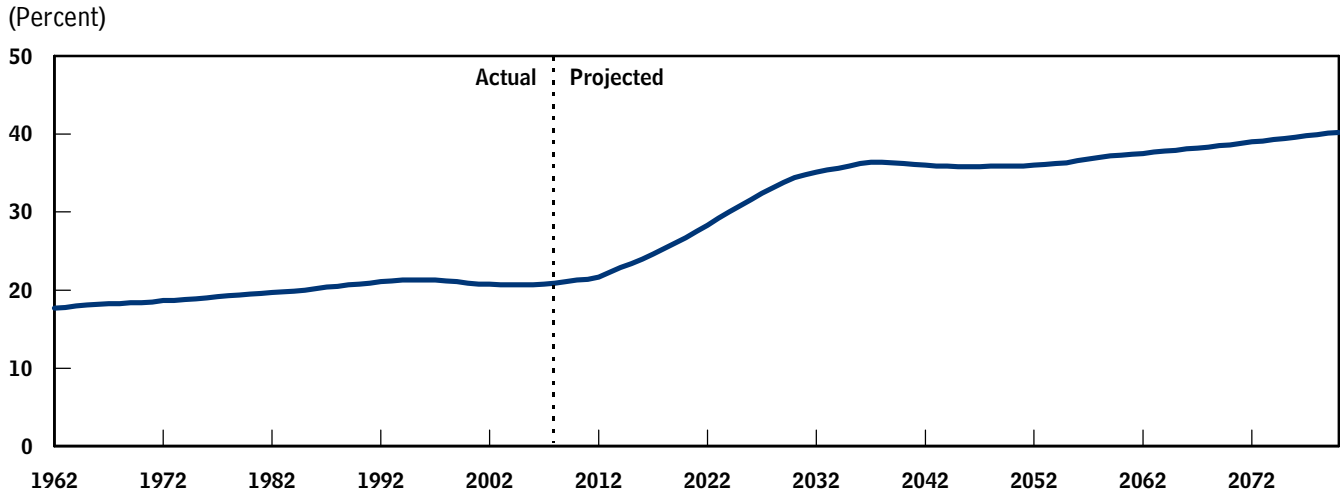


Source:    Congressional Budget Office.

Revenues dedicated to the Social Security program will continue to exceed the program's scheduled outlays until fiscal year 2017, CBO estimates. In the long run, the dedicated revenues will be insufficient to pay scheduled benefits under either scenario. (In developing those projections, however, CBO has assumed that all scheduled benefits will be paid.)

A commonly used measure of the sustainability of a program that has a trust fund and a dedicated revenue source is its actuarial balance—that is, the present value of revenues plus the trust fund balance minus the present value of outlays over a specified period. (The present value is a single number that expresses a flow of current and future income or payments in terms of an equivalent lump sum received or paid today.) That difference is shown as a percentage of the present value of taxable payroll over the same period. (To account for the difference between the trust fund's current balance and the desired balance at the end of the period, the balance at the beginning of the period is added to the projected revenues, and an additional year of costs at the end of the period is added to projected outlays.) CBO estimates that over the 75-year projection period, dedicated revenues will fall short of scheduled benefits by 1.33 percent of taxable payroll under the extended-baseline scenario (see Table 3-1).[7] In other words, to bring the program into actuarial balance over the next 75 years, payroll taxes could be immediately increased by 1.33 percent of taxable payroll and kept at

that higher rate, or scheduled benefits could be reduced by an equivalent amount. Under the alternative fiscal scenario, in which the assumption about income tax rates is consistent with that of the Social Security trustees, the shortfall would be 1.54 percent of taxable payroll. That estimate is somewhat smaller than the most recent estimate of the long-range actuarial deficit reported by the trustees.[8]

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7.  Another commonly used metric is the trust funds' exhaustion date, which CBO projects will be 2047 under the extended-baseline scenario and 2045 under the alternative fiscal scenario. Once the trust funds are depleted, the Social Security Administration no longer has legal authority to pay benefits. In the years following the trust funds' exhaustion, annual outlays would be limited to annual revenues, so the benefits that could be paid would be substantially lower than the benefits that were scheduled to be paid. In its August 2008 report titled *Updated Long-Term Projections for Social Security,* CBO projected benefits under two scenarios: a "payable benefits" scenario, in which outlays are limited by the availability of trust fund balances, and a "scheduled benefits" scenario, in which they are not limited. This report uses the latter scenario.

8.  In their 2009 annual report, the trustees estimated that, on the basis of their intermediate assumptions, the program's actuarial balance was -2.00 percent of taxable payroll for the 2009–2083 period. 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), pp. 57–61.

**Table 3-1.**

# Summarized Measures for Social Security Under CBO's Long-Term Budget Scenarios

(Percentage of taxable payroll)

| Projection Period | Income Rate | Cost Rate | Actuarial Balance |
|---|---|---|---|
| | Extended-Baseline Scenario | | |
| 25 Years (2009 to 2033) | 15.3 | 14.9 | 0.4 |
| 50 Years (2009 to 2058) | 14.5 | 15.4 | -0.9 |
| 75 Years (2009 to 2083) | 14.4 | 15.7 | -1.3 |
| | Alternative Fiscal Scenario | | |
| 25 Years (2009 to 2033) | 15.2 | 14.9 | 0.3 |
| 50 Years (2009 to 2058) | 14.4 | 15.4 | -1.0 |
| 75 Years (2009 to 2083) | 14.1 | 15.7 | -1.5 |

Source:   Congressional Budget Office.

Notes:   The income and cost rates are the present values of annual revenues and costs over the relevant time period divided by the present value of taxable payroll over that period (after adjustments for the initial trust fund balance and target balance at the end of the relevant time period). The actuarial balance is the present value of revenues minus the present value of costs divided by the present value of taxable payroll over that period.

The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period. The alternative fiscal scenario deviates from CBO's baseline projections, beginning in 2010, by incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

## Slowing the Growth of Social Security Spending

Three broad approaches for constraining the rise in Social Security benefits have received considerable attention. Under those approaches, policymakers could:

■ Reduce the size of the initial payments that new Social Security beneficiaries are scheduled to receive,

■ Increase further the age at which workers become eligible for full retirement benefits (which would reduce the initial benefit received at any given age of claiming), or

■ Reduce the annual cost-of-living adjustment that beneficiaries receive once they become eligible for benefits.

Several CBO papers have analyzed those and other approaches for restructuring the Social Security program.[9] In addition to reducing future Social Security benefits, policymakers could restore long-term actuarial

balance to the program by raising Social Security taxes or dedicating more general revenue to it.

If policymakers decide to slow the growth of Social Security benefits, considerations of both fairness and economic efficiency point toward enacting new legislation long before the changes take effect. People generally consider the size of their expected Social Security benefits when deciding how much to save and how long to work. Because those benefits are a major source of income for many people, it will be important to enact any benefit reductions well in advance to give people enough time to respond by adjusting their plans for saving and retirement.

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9.  See, for example, Congressional Budget Office, *Budget Options, Volume 2* (forthcoming). For projections of the financial and distributional effects of numerous specific options, see Congressional Budget Office, *Menu of Social Security Options* (May 25, 2005). CBO's analyses of the Social Security program and of several proposals to slow the growth of Social Security spending can be found on the agency's Web site, in the special collection on Social Security (www.cbo.gov/publications).

# The Long-Term Outlook for
# Other Federal Spending

In 2008, a little more than one-half of federal spending went toward programs other than Medicare, Medicaid, and Social Security and for net interest payments on the public debt. The category of other federal spending includes discretionary programs, which are funded through the annual appropriation process, and mandatory programs (other than Medicare, Medicaid, and Social Security), which are usually funded according to the underlying statutes that establish eligibility and pay-

ment standards. Other mandatory spending also includes the refundable portions of the earned income tax credit and the child tax credit, which the budget records as outlays.

The two scenarios that the Congressional Budget Office used in making its long-term budget projections reflect two of many possible future paths for the category of other federal spending (see Figure 4-1):

**Figure 4-1.**

## Spending Other Than That for Medicare, Medicaid, Social Security, and Net Interest, Calendar Years 1962 to 2080

(Percentage of gross domestic product)
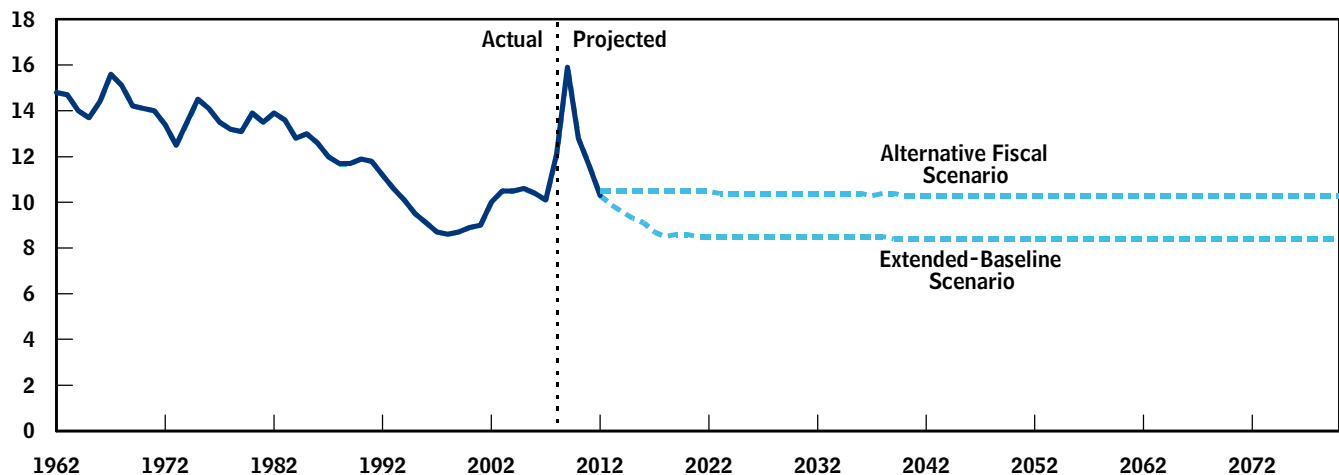


Source: Congressional Budget Office.

Note: The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period. The alternative fiscal scenario deviates from CBO's baseline projections, beginning in 2012, by incorporating some changes in policy that are widely expected to occur and that policy-makers have regularly made in the past.

■ Under the extended-baseline scenario, CBO used the projections for other federal spending from its 10-year baseline for fiscal years 2010 to 2019.[1] In the baseline, mandatory programs are assumed to operate as they do under current law, and funding for discretionary spending is projected to grow at the rate of inflation. After 2019, other federal spending under the extended-baseline scenario is maintained at the same share of gross domestic product (8.6 percent) projected for 2019 under the baseline, except that refundable tax credits are permitted to change in tandem with movements in income tax revenues. Thereafter, because of the refundable tax credits, such spending declines slightly, to 8.4 percent of GDP in 2080.

■ Under the alternative fiscal scenario, which incorporates some changes in policy that are widely expected to occur and that policymakers have regularly made in the past, other federal spending would drop to 10.5 percent of GDP in 2012 and then, because of the refundable tax credits, would decline gradually to 10.3 percent in 2080.

Spending for this broad category of programs and activities is unusually high in 2009 because of the impact of the recession, the fiscal stimulus legislation, and efforts to stabilize the nation's financial system. For a brief discussion of how spending related to the current recession and to military operations in Iraq and Afghanistan affects the projections under the two scenarios, see Box 4-1.

## Discretionary Spending

A distinct pattern in the federal budget since 1962 is the diminishing share of spending provided through annual appropriations (see Figure 4-2). As a share of the budget, discretionary spending has fallen from 68 percent in 1962 to 38 percent in 2008. Relative to the size of the economy, such spending has declined from 12.7 percent of GDP in 1962 to 8.0 percent in 2008.

As a share of GDP, total discretionary spending peaked at more than 13.6 percent in 1968, boosted by outlays for defense that reached 9.5 percent of GDP at the height of the Vietnam War. Similarly, the trough in discretionary spending that occurred in 1999 and 2000 reflected the

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1. For consistency with CBO's standard baseline budget projections, the values in this chapter for 2019 and earlier years are fiscal year values.

**Table 4-1.**

## Other Federal Spending Under CBO's Baseline

(Percentage of gross domestic product)

|  | 2008 | 2019 |
|---|---|---|
| Discretionary Spending | 8.0 | 6.4 |
| Defense spending | 4.3 | 3.4 |
| Nondefense spending | 3.7 | 3.0 |
| Other Mandatory Spending | 2.8 | 2.1 |
| **All Other Federal Spending** | **10.8** | **8.6** |

Source:   Congressional Budget Office.

Note:   Other federal spending is all spending other than that for Medicare, Medicaid, Social Security, and net interest.

bottoming-out of defense expenditures, at 3.0 percent of GDP. In contrast, nondefense discretionary spending as a share of GDP varied over a narrower range—from 5.2 percent in 1980 to 3.2 percent in 1999.

**Defense Discretionary Spending**
In 2008, defense spending totaled 4.3 percent of GDP; under the assumptions of CBO's 10-year baseline, it would constitute about 3.4 percent of GDP in 2019 (see Table 4-1). Since World War II, defense spending has fluctuated to a significant degree. For example, it increased during the Korean War (averaging 11.6 percent of GDP from 1951 to 1953), the Vietnam War (averaging 8.5 percent from 1966 to 1970), and the defense buildup from 1982 to 1986 (averaging 6.0 percent). It has risen again more recently—from 2001 to the present—to support military operations in Iraq and Afghanistan and related activities. During the intervening periods, defense spending tended to decline as a percentage of GDP. Overall, it has averaged about 5 percent of GDP during the past 40 years and about 4 percent over the past 20 years.

**Nondefense Discretionary Spending**
Discretionary spending for nondefense activities, such as education grants, housing, highways, and national parks, totaled 3.7 percent of GDP in 2008; under CBO's baseline assumptions, it would constitute about 3.0 percent of GDP in 2019, CBO projects. Over the past 40 years, discretionary spending for nondefense activities has ranged between roughly 3 percent and 4 percent of GDP

**Figure 4-2.**

## Discretionary Spending and Mandatory Spending Other Than That for Medicare, Medicaid, Social Security, and Net Interest, Fiscal Years 1962 to 2008

(Percentage of gross domestic product)
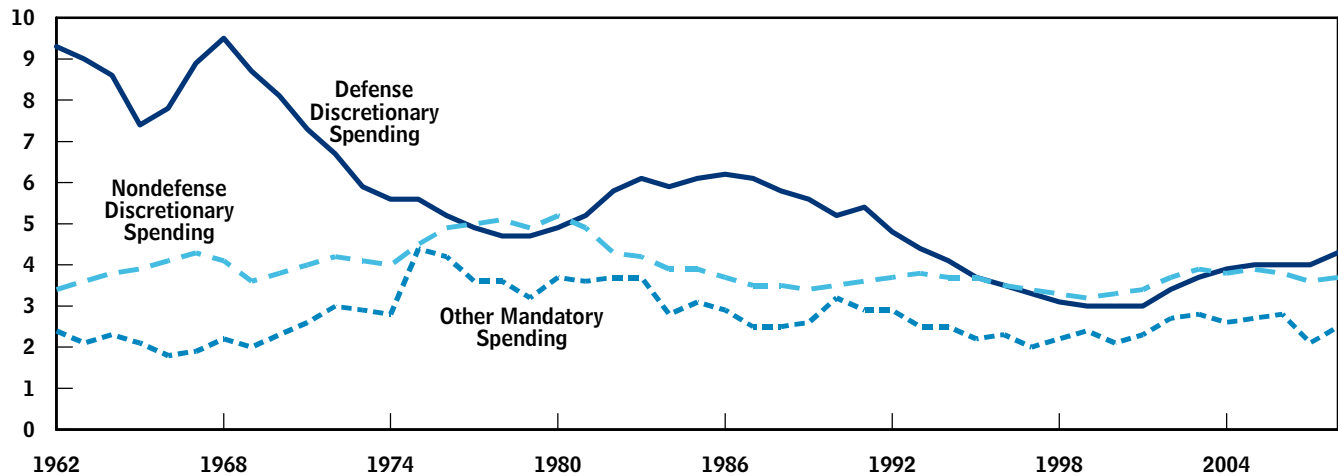


Source:   Congressional Budget Office.

with one exception—from 1976 to 1981, when it rose to about 5 percent of GDP.

## Other Mandatory Spending

Other mandatory spending (that is, excluding outlays for Medicare, Medicaid, and Social Security) totaled about 2.8 percent of GDP in 2008 and is projected to be 2.1 percent in 2019 under CBO's 10-year baseline assumptions. Other mandatory spending includes an amalgam of federal programs—including, for example, federal civilian and military retirement benefits, the Supplemental Nutrition Assistance Program (formerly known as the Food Stamp program), unemployment compensation, and veterans' benefits—and certain receipts recorded as negative outlays. Those receipts, also known as offsetting receipts, include such payments as contributions for the federal civilian and military retirement programs and proceeds from energy leases on the Outer Continental Shelf. Other mandatory spending, after peaking during the mid-1970s to the early 1980s,

has moved up and down around a 20-year average of 2.5 percent of GDP (see Figure 4-2).

In CBO's 10-year baseline budget projections, premiums paid by Medicare beneficiaries, which are classified as off-setting receipts, are not included in the Medicare totals and are presented as offsets to total mandatory spending. In this report, CBO presents net federal spending on Medicare, which is equal to gross Medicare spending minus the offsetting receipts from Medicare premiums. Therefore, other mandatory spending is higher in this report than the amounts presented in CBO's reports on its 10-year baseline projections, which include the receipts from Medicare premiums.[2]

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2.   For example, in 2008, gross Medicare spending was 3.2 percent of GDP, and other mandatory spending (including Medicare premiums) was 2.3 percent. Combining Medicare spending and premiums would yield net Medicare spending of 2.7 percent of GDP and leave other mandatory spending at 2.8 percent.

**Box 4-1.**

# Spending Related to the Recession and the Wars in Iraq and Afghanistan

In fiscal year 2009, spending for programs and activities other than Medicare, Medicaid, Social Security, and net interest will total about 16.6 percent of gross domestic product (GDP), the Congressional Budget Office (CBO) estimates.[1] Roughly a third of those outlays (about $835 billion) will be for activities that are related to the current economic situation and might be considered extraordinary: The Emergency Economic Stabilization Act of 2008 (Public Law 110-343) created the Troubled Asset Relief Program (TARP), which provides financial assistance and loans to banks, automotive companies, and other firms in the financial sector; and the American Recovery and Reinvestment Act of 2009 (P.L. 111-5, or ARRA) provided funding to stimulate the economy, such as grants to states for highway construction and education. In addition, the government will spend about $170 billion (1.2 percent of GDP) on military operations in Iraq and Afghanistan.

**Spending Under the Extended-Baseline Scenario**

For the extended-baseline scenario, CBO assumed that spending for programs other than Medicare, Medicaid, and Social Security would continue to grow as specified by standard baseline rules through 2019 and then remain constant as a share of GDP after that.[2] By 2019, CBO estimates, spending related to the current economic situation will be negligible. At that point, other federal spending will amount to 8.6 percent of GDP. The extended-baseline scenario assumes spending at about that level throughout the projection period. The long-term outlook, which is constructed from CBO's March 2009 baseline, includes the following projections:

■ Outlays for the Troubled Asset Relief Program will total $340 billion (2.4 percent of GDP) in 2009. Because the costs of the TARP are recorded in the budget on a present-value basis and the program provides financial assistance only for 2009 and 2010, there are no estimated outlays for TARP after 2010.[3]

■ Because of the extent of the government's control over Fannie Mae and Freddie Mac—two of the housing-related government-sponsored enterprises (GSEs)—CBO has included their spending in the federal budget. Outlays for those two entities will be about $290 billion (2.1 percent of GDP) in 2009, CBO estimates. Most of that cost represents CBO's valuation of the credit losses on mortgage guarantees that the two GSEs held when the government put them into federal conservatorship in the fall of 2008. CBO projects that outlays for Fannie Mae and Freddie Mac will drop as the housing market recovers and will total only a few billion dollars in 2019.

■ Outlays for programs created under ARRA will be about $120 billion in 2009 (0.9 percent of GDP), $220 billion in 2010, $130 billion in 2011, and negligible in 2019 (primarily constituting refundable tax credits).

■ Outlays for unemployment insurance and the Supplemental Nutrition Assistance Program (SNAP, formerly known as Food Stamps)—two programs whose spending tends to follow the business cycle—will total about $160 billion in 2009 (1.1 percent of GDP), declining to about 0.5 percent in 2019. That difference, 0.6 percent, includes temporary increases in benefits due to legislation and increased participation stemming from higher unemployment.

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1. For consistency with CBO's standard baseline budget projections, the values in this box for 2019 and earlier years are fiscal year values.

2. Those rules, which CBO uses to construct its baseline budget projections, are specified in section 257 of the Balanced Budget and Emergency Deficit Control Act of 1985.

3. The present value is a single number that expresses a flow of current and future income or payments in terms of an equivalent lump sum received or paid today.

**Box 4-1.**                                                                                              **Continued**

## Spending Related to the Recession and the Wars in Iraq and Afghanistan

■ Under CBO's baseline, outlays for deposit insurance will be about $18 billion (0.1 percent of GDP) in 2009 and $25 billion in 2010.[4] Banks and credit unions pay the premiums for deposit insurance, and CBO projects that premium income will exceed outlays in 2019 by a few billion dollars.

■ In CBO's baseline, outlays for operations in Iraq and Afghanistan and other activities related to the war on terrorism are about $143 billion in 2009, declining to about $75 billion in 2019. In 2009, those outlays include spending from the $68 billion appropriated for 2009 by the Supplemental Appropriations Act, 2008 (P.L. 110-252), and from funds provided in prior fiscal years. On June 24, the President signed into law the Supplemental Appropriations Act, 2009 (P.L. 111-32). That law appropriates $106 billion, most of which is for the wars. It will increase outlays for the wars by $25 billion in 2009, raising total outlays this year to about $170 billion. The $106 billion is not projected in CBO's March 2009 baseline, and including those outlays in the extended-baseline scenario would increase the projection of other federal spending by 0.6 percent of GDP in 2019.

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4. On May 20, 2009, the President signed into law the Helping Families Save Their Homes Act of 2009 (P.L. 111-22), which CBO estimates will increase outlays for deposit insurance by about $4 billion in 2009 and $7 billion in 2010. Those increased outlays, though, will be offset by increased premiums; over the 2009–2019 period, the added premiums will exceed the increase in outlays by about $3 billion. Including those effects in the extended-baseline scenario would have a negligible impact.

**Spending Under the Alternative Fiscal Scenario**
In the alternative fiscal scenario, for most of the programs, CBO holds the percentage of other federal spending as a share of GDP constant at its fiscal year 2009 level. However, in the March 2009 baseline, in consultation with the budget committees, CBO did not project forward the discretionary budget authority provided under ARRA. Because the stimulus legislation was intended to be a one-time appropriation, projecting such a significant amount of funding for future years would make the forecast less useful for policymakers.

In a similar manner, CBO has adjusted its alternative fiscal scenario to reflect the temporary nature of TARP, ARRA, and programs with a cyclical component. Of the 16.6 percent of GDP devoted to other federal spending in 2009, spending related to the current economic situation (not including the wars in Iraq and Afghanistan) is about 6.0 percent. Because of the extraordinary nature of many of those expenditures, CBO has used an adjusted 2009 spending level equal to 10.5 percent of GDP as the basis for the long-term projections.

Thus, in the alternative fiscal scenario, outlays for other spending are set equal to the baseline projections or the adjusted 2009 projections, whichever are larger. Specifically, outlays are 16.6 percent of GDP in 2009, 13.1 percent in 2010, 11.9 percent in 2011, and 10.5 percent in 2012. Thereafter, the assumed amount declines slightly because the refundable portions of the earned income tax credit and the child tax credit decline as a percentage of GDP, reaching 10.3 percent in 2080.

# The Long-Term Outlook for Revenues

The federal government collects revenues in the form of individual and corporate income taxes, social insurance (payroll) taxes, excise taxes, estate and gift taxes, customs duties, and miscellaneous receipts. Policymakers adjust the level and composition of revenues frequently and will probably make significant changes to the tax system over the next 75 years.

Many potential paths exist for future revenues. Moreover, the total revenues assumed under any particular scenario could be generated from a variety of policies that would have very different implications for the economy and for the share of income paid in taxes by people at various income levels. This analysis focuses on two potential scenarios for federal receipts. The extended-baseline scenario assumes that current law remains in place: The tax cuts enacted in 2001 and 2003 and those in the recent stimulus bill expire as scheduled, and the individual alternative minimum tax remains the same. Under that scenario, estimated revenues for the next 10 years would be consistent with the Congressional Budget Office's March 2009 baseline projections, which also include the effects of the economic recovery expected over the next few years. After 2019, revenues would rise relative to GDP. Over the 2009–2035 period, they would rise from almost 16 percent of GDP in 2009 to almost 22 percent in 2035, an increase of roughly 6 percentage points (see Figure 5-1).

The alternative fiscal scenario, by contrast, starts with tax law for the individual income tax as it stands in 2009 and generally assumes that it remains unaltered over the projection period. Thus, not all of the expirations or other changes to tax law scheduled to occur in coming years are assumed to take effect. The alternative fiscal scenario also assumes that the parameters of the AMT will be indexed for inflation after 2009. Under this scenario, revenues as a share of GDP would increase to a smaller extent than under the extended-baseline scenario: by roughly 3.4 percentage points between now and 2035.

Over the long term, the cumulative effects of inflation and real (inflation-adjusted) growth in income interact with the tax system in both scenarios. The result is higher average tax rates—that is, taxes as a share of income—and a significant change in the distribution of taxes. Under the extended-baseline scenario, the cumulative effects of inflation would cause nearly half of all households to be subject to the AMT by 2035 and almost three-quarters of all households by 2080; at that point, revenues would reach 26 percent of GDP. The impact of inflation and real income growth would be smaller under the alternative fiscal scenario.

## Revenues Over the Past 50 Years

In the past half-century, total revenues have ranged from 16.2 percent to 20.9 percent of GDP (averaging 18.1 percent), with no obvious trend over time (see Figure 5-2). During that period, however, the various sources of revenue have changed in importance. Individual income taxes, which account for about half of all revenues, have varied between 7 percent and 10 percent of GDP. Social insurance taxes, which make up about one-third of total revenues, have grown from 2 percent to about 6.5 percent of GDP. (Those taxes consist primarily of payroll taxes credited to the Social Security and Medicare Hospital Insurance Trust Funds.) Corporate income taxes contribute less now than in earlier years: in 2008, about 12 percent of overall revenues, or about 2 percent of GDP, down from nearly 6 percent of GDP a half-century ago. Revenues from other taxes and duties, as well as miscellaneous receipts, make up the balance—accounting for roughly 1 percent to 3 percent of GDP over the past 50 years.

Some of the variation in the composition of total tax revenues has stemmed from the interaction between the tax code and changes in the economy. For example, excise tax

**Figure 5-1.**

# Total Federal Revenues Under CBO's Long-Term Budget Scenarios
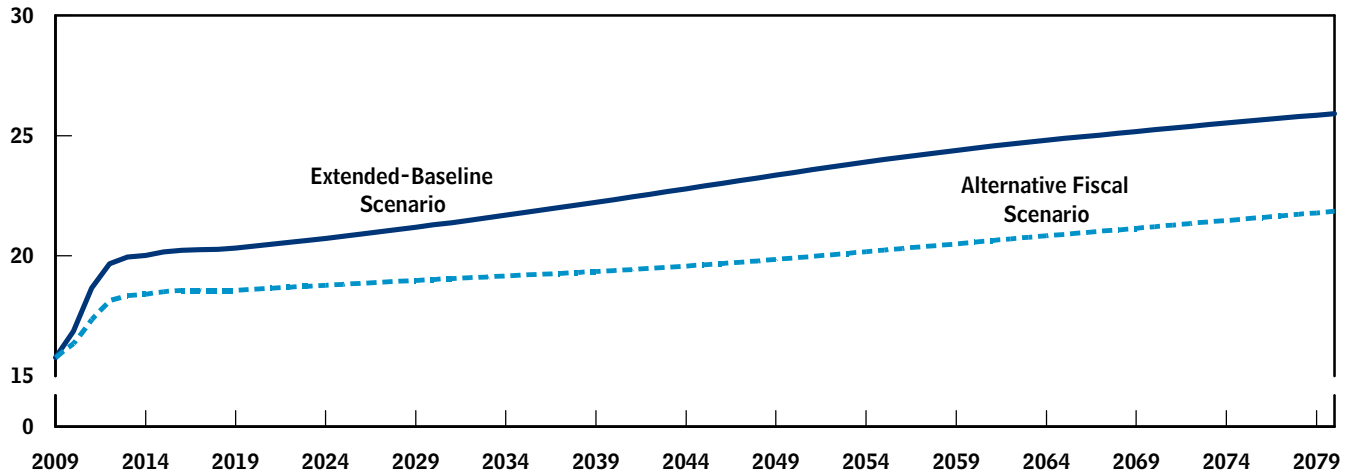
(Percentage of gross domestic product)



Source:    Congressional Budget Office.

Note:    The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period. The alternative fiscal scenario deviates from CBO's baseline projections, beginning in 2010, by incorporating some changes in policy that are widely expected to occur and that policy-makers have regularly made in the past.

receipts have tended to decline over time as a percentage of GDP because many are specific levies (such as cents per gallon of gasoline) that are not indexed for inflation. Therefore, they have diminished in importance as the general level of prices has risen. In contrast, income tax receipts have tended to grow relative to GDP because increases in prices have caused various thresholds in the income tax system to decline in real terms, thus boosting the amount of income subject to taxation at higher rates.

More of the variation in tax revenues from different sources has resulted from legislative changes, as policy-makers adjusted tax rates and other parameters of the tax system—sometimes to offset the impact of economic changes on taxes. For instance, much of the individual income tax system was indexed over time to prevent infla-tion from raising income taxes relative to GDP. Even so, real growth results in higher average tax rates under cur-rent law because a greater share of income is taxed in higher tax brackets (a circumstance commonly known as real bracket creep). Without future adjustments, a host of characteristics of the current tax system will continue to interact with economic trends and cause receipts, on net, to grow faster than GDP.

## Factors Affecting Future Federal Revenues

In the absence of legislative action, the individual income tax system has the greatest potential to increase the ratio of revenues to GDP because of the various ways in which its structure interacts with the economy.

First, the individual income tax system is progressive, meaning that households with higher incomes are taxed at higher rates. Consequently, as GDP and hence individ-ual incomes grow, an ever-larger proportion of income will be subject to higher tax rates, both because the amount of income taxed at the highest rates will increase and because the amount of earned income tax credits claimed by low-income taxpayers will decline. Much of the tax system is indexed for inflation, so those changes will result primarily from growth of real GDP. But some features of the regular income tax system are not indexed, so inflation will cause additional, though modest, increases in receipts relative to GDP over the projection period.

Second, the individual income tax system includes the alternative minimum tax, which subjects more taxpayers and a greater fraction of income to higher tax rates as

**Figure 5-2.**

# Revenues, by Source, Fiscal Years 1953 to 2008

(Percentage of gross domestic product)
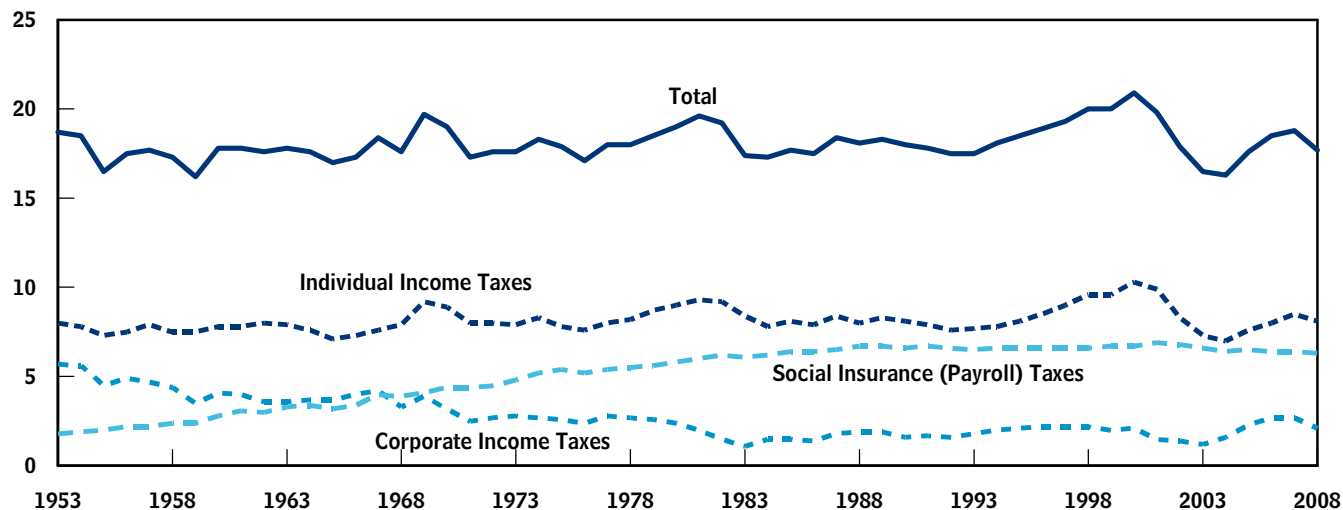


Source:    Congressional Budget Office.

incomes grow. The AMT is a parallel income tax system with fewer exemptions, deductions, and rates than the regular income tax. Households must calculate the amount they owe under both the AMT and the regular income tax and pay the higher of the two amounts.[1] The AMT is not indexed for inflation. Therefore, as sustained inflation increases nominal incomes over time, it causes more taxpayers to pay the AMT and causes the AMT to claim an ever-larger share of GDP.

Third, current tax law includes an increase in revenues in 2011. Most of the provisions in the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) and the Jobs and Growth Tax Relief Reconciliation Act of 2003 (JGTRRA) are scheduled to expire after December 31, 2010, as are most of the tax provisions in the American Recovery and Reinvestment Act of 2009 (ARRA). When that happens, the tax code will revert to prior law: Tax rates will rise, some tax credits will fall, and thresholds for certain rates will shift. Those changes will increase the level of receipts as a share of GDP in 2011 and beyond.

Fourth, between now and about 2030, the Treasury will receive some tax revenues that have essentially been deferred. Contributions to retirement plans—such as 401(k) plans and individual retirement accounts—and to employer-sponsored defined-benefit plans are tax-exempt when they are made. The income earned on assets in those accounts is also exempt from taxes, but withdrawals from those plans are taxable. As the baby boomers retire and withdraw money from their accounts, those sums will make up a rising portion of taxable income, which will tend to boost tax receipts relative to GDP.

At least one factor, however, will reduce tax receipts over time. The share of employees' compensation that is paid in the form of wages and salaries (which are subject to income and payroll taxes) will decline, CBO projects, because of rising spending on nontaxable fringe benefits such as employer-paid health insurance. That declining share will decrease taxable income—and thus revenues from both income and payroll taxes—relative to GDP.

The design of two smaller revenue sources—excise taxes and estate taxes—will also contribute to altering revenues as a share of GDP over time. Most excise tax receipts stem from duties that are levied as a fixed charge per unit purchased. Under current law, the fee schedule for most excise taxes is projected to stay the same. As a result, excise taxes will not grow as fast as the economy and thus

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1.  Technically, a taxpayer owes the regular income tax plus any amount by which the AMT exceeds the regular tax. For more information on the AMT, see Congressional Budget Office, *The Alternative Minimum Tax (*April 15, 2004).

will decline relative to GDP over time. In the other direction, the dollar amount of an estate that is exempt from taxation will remain fixed after 2011 under current law. Consequently, a greater share of wealth will be subject to the estate tax over time. With the tax base growing relative to GDP under current law, estate tax receipts will rise relative to GDP over the long term. That projected increase in estate tax receipts will more than offset the decrease in excise tax revenues as a percentage of GDP.

Both payroll and corporate taxes are projected to remain relatively constant as a share of their tax bases—wages and corporate profits, respectively—during the next 75 years. Most corporate profits are taxed at the top corporate rate, so real bracket creep does not lead to a higher average tax rate over time. CBO's long-term scenarios assume that profits will grow at the same rate as GDP over the long run, and thus corporate tax receipts are projected to remain constant as a share of GDP.

Payroll taxes are levied as a fixed percentage of wages, with one portion of the tax applying only up to a specified taxable maximum amount. Because that taxable amount is indexed for wage growth, the average payroll tax rate on wages is expected to remain relatively constant over the long term. The only significant change in the ratio of payroll taxes to GDP through 2080, therefore, comes from the aforementioned impact of rising spending for nontaxable fringe benefits on the size of wages as a share of GDP.

## Revenue Projections Under CBO's Long-Term Budget Scenarios

CBO's long-term budget scenarios consider two possible paths for revenues. The first would extend the agency's current 10-year baseline projections for revenues. Like the baseline, that scenario assumes that current law remains in place, particularly with regard to the following:

■ The provisions of EGTRRA, JGTRRA, and ARRA expire as scheduled,

■ Policymakers do not modify the AMT, and

■ No changes are made in tax law to slow the automatic increase in tax revenues that results from the interaction between economic growth and the progressive structure of the income tax.

As explained above, although there is some tendency for rising health care costs to reduce revenues as a percentage of GDP over the long term, the dominant effect of the tax system's current-law features is to increase receipts relative to GDP. Consequently, under the extended-baseline scenario, revenues would rise from nearly 16 percent of GDP in 2009 to almost 22 percent by 2035 and to 26 percent by 2080.

The second path, the alternative fiscal scenario, assumes that certain features of 2009 tax law are maintained for the individual income tax over the next 75 years:

■ The provisions of EGTRRA and JGTRRA are assumed to be extended (though the tax provisions of ARRA are assumed to expire as scheduled),

■ The parameters of the tax code that are indexed for inflation are assumed to increase with inflation (as in the extended-baseline scenario), and

■ Unindexed parameters are assumed to remain at their 2009 values (again, as in the extended-baseline scenario), with the exception of the AMT, which is assumed to be indexed for inflation beginning in 2009.

Under the alternative fiscal scenario, payroll tax receipts would be the same as under the extended-baseline scenario. Other sources of revenue (except the corporate income tax) are assumed to maintain the same ratio to GDP as in 2009. Corporate income taxes, however, would follow the path projected in CBO's 10-year baseline, which assumes that corporate profits vary relative to GDP. After 2019, corporate tax receipts would be held constant as a percentage of GDP, because corporate profits are assumed to grow at the same rate as GDP for the rest of the 75-year projection period. In all, federal revenues would reach 19 percent of GDP by 2035 under the alternative fiscal scenario and nearly 22 percent by 2080. (For CBO's assumptions about particular revenue sources under the two scenarios, see Table 5-1.)

**Table 5-1.**

# Assumptions About Particular Revenue Sources Underlying CBO's Long-Term Budget Scenarios

|  | Extended-Baseline Scenario | Alternative Fiscal Scenario |
| --- | --- | --- |
| Individual Income Taxes | As scheduled under current law | Tax provisions in EGTRRA and JGTRRA are extended and AMT parameters are indexed for inflation after 2009 |
| Corporate Income Taxes | As scheduled under current law | As scheduled under current law |
| Payroll Taxes | As scheduled under current law | As scheduled under current law |
| Excise Taxes and Estate and Gift Taxes | As scheduled under current law | Constant as a share of GDP through 2080 |
| Other Revenues | As scheduled under current law through 2019; remaining constant as a share of GDP thereafter | As scheduled under current law through 2019; remaining constant as a share of GDP thereafter |

Source:    Congressional Budget Office.

Notes:   The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period. The alternative fiscal scenario deviates from CBO's baseline projections, beginning in 2010, by incorporating some changes in policy that are widely expected to occur and that policy-makers have regularly made in the past.

EGTRRA = Economic Growth and Tax Relief Reconciliation Act of 2001; JGTRRA = Jobs and Growth Tax Relief Reconciliation Act of 2003; AMT = alternative minimum tax; GDP = gross domestic product.

**Individual Income Taxes**

Under both of the long-term budget scenarios, individual income taxes would be responsible for most of the increase in revenues relative to GDP. By 2035, individual income tax receipts would rise by about 5.9 percentage points under the extended-baseline scenario and by about 3.4 percentage points under the alternative fiscal scenario. That difference of 2.5 percentage points between the scenarios largely represents the impact of two factors incorporated in the extended-baseline scenario: the mounting effects of the AMT and the expiration of provisions in EGTRRA and JGTRRA, both of which are currently the subject of much legislative interest.[2] The difference in individual income tax receipts relative to GDP between the two scenarios would continue to grow over time, amounting to 3.6 percentage points by 2080.

**The Impact of the AMT and Expiring Tax Provisions.** The effects of those two major factors can be distinguished by comparing CBO's long-term budget scenarios with a third scenario (a variant of the extended-baseline scenario), which assumes that policymakers do not index the

AMT for inflation but that they permanently extend the tax provisions of EGTRRA and JGTRRA. Comparing that scenario with the alternative fiscal scenario, which assumes that the AMT is indexed for inflation, measures the growing impact of the unindexed AMT over time. Under the variant scenario, individual income tax revenues would be 0.8 percentage points higher in 2019 than under the alternative fiscal scenario (see Figure 5-3).[3] That gap relative to GDP would widen to 1.9 percentage points by 2035 as the cumulative effects of inflation caused more taxpayers to be subject to the AMT.

Likewise, comparing the variant scenario with the original extended-baseline scenario highlights the impact of the assumptions about EGTRRA and JGTRRA. The expiration of those two laws' tax provisions would add about 0.8 percentage points to individual income tax receipts as a share of GDP in 2011. Thereafter, the annual addition would be smaller, amounting to about

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2.   The President's budget request for 2010 envisions permanently extending certain provisions of EGTRRA and JGTRRA and permanently indexing the AMT after 2009.

3.   To more easily compare the variant scenario with the alternative fiscal scenario, both of them exclude the scheduled elimination of the phaseout of personal exemptions and itemized deductions that occurs under the extended-baseline scenario. The variant still captures the bulk of the expirations of the tax cuts scheduled to take place after 2010, however.

**Figure 5-3.**

# Individual Income Tax Revenues Under Alternative Scenarios

(Percentage of gross domestic product)
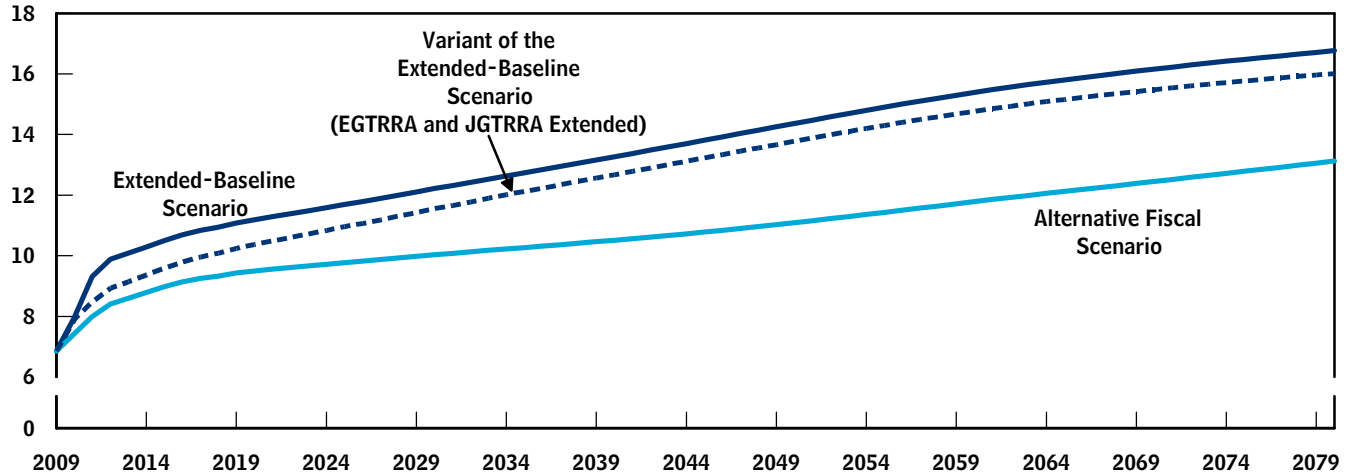


Source:    Congressional Budget Office.

Note:    The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to
2019 and then extending the baseline concept for the rest of the projection period. The variant of the extended-baseline scenario
assumes that the provisions of the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA) and the Jobs and Growth Tax
Relief Reconciliation Act of 2003 (JGTRRA) do not expire as scheduled at the end of 2010. The alternative fiscal scenario deviates from
CBO's baseline projections, beginning in 2010, by incorporating some changes in policy that are widely expected to occur and that pol-
icymakers have regularly made in the past.

0.6 percentage points in 2035 and remaining at that
level, on average, through the 75-year projection period.
The revenue impact of letting EGTRRA and JGTRRA
expire would wane over time because of the growth of the
AMT. As a greater share of individual income taxes was
paid through the AMT, the effect of the two laws' expira-
tion would decline because many of the provisions of
those laws do not benefit taxpayers who are subject to the
AMT. Thus, the nonindexation of the AMT has a larger
effect on long-run individual income tax revenues than
does the expiration of EGTRRA and JGTRRA.

**Other Factors Affecting Individual Income Tax Receipts.**
Even if the AMT was indexed for inflation and the tax
provisions of EGTRRA and JGTRRA were made perma-
nent—as in the alternative fiscal scenario—individual
income tax revenues would continue to rise as a percent-
age of GDP. The main reason is the progressive rate struc-
ture of the tax system. As income grows, more income is
taxed at higher rates. That factor would increase income
tax revenues relative to GDP by 3.4 percentage points by
2035 and by 6.3 percentage points by 2080. Most of the
increase stems from real bracket creep. But because even a

low annual rate of inflation would amount to a signifi-
cant rise in prices by 2080, some of the increase in
receipts relative to GDP under the alternative fiscal sce-
nario is attributable to the interaction between income
growth and the remaining unindexed provisions of the
tax code. If policymakers indexed all parameters in the
tax code (including the AMT) for both real and inflation-
ary growth in income, the parameters that tend to push
up revenues relative to GDP would no longer do so.

Another factor that will contribute to the increase in
income tax revenues as a share of GDP over the next few
decades is the retirement of the baby-boom generation.
Taxable withdrawals from retirement plans will rise as a
percentage of GDP as the portion of the population
receiving pension benefits grows through 2030 and levels
off thereafter. As a result, for example, projected revenues
as a share of GDP would climb by about 0.6 percentage
points between 2009 and 2030 under the extended-
baseline scenario. After 2030, the net impact of retire-
ment contributions, earnings, and withdrawals would do
little to change revenues as a share of GDP.

**Figure 5-4.**

## The Impact of Rising Health Care Costs on Individual Income and Payroll Tax Revenues Under CBO's Extended-Baseline Scenario
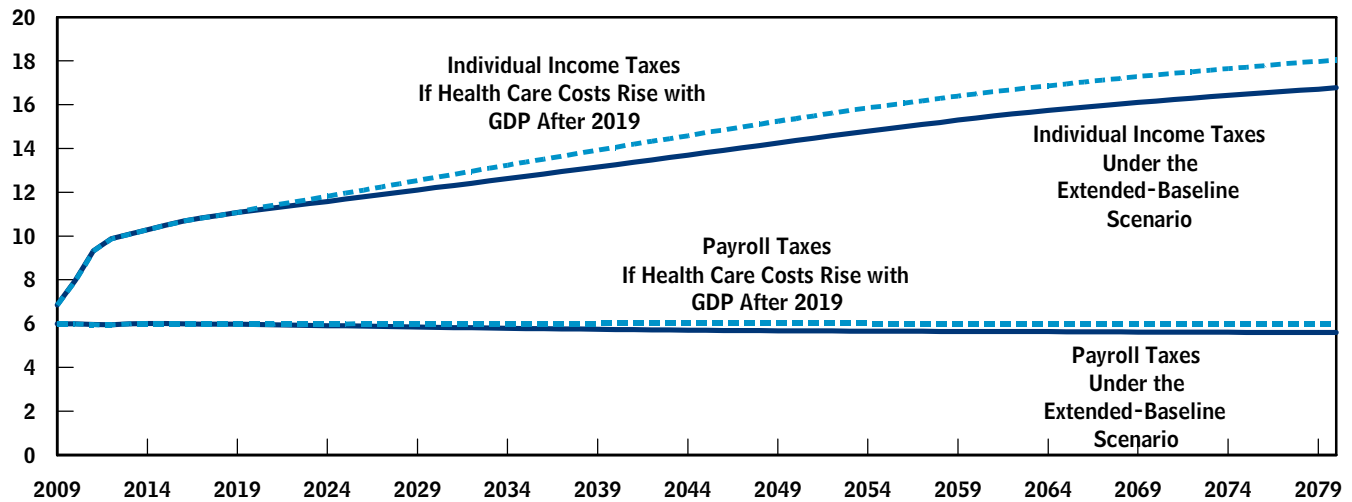
(Percentage of gross domestic product)



Source:   Congressional Budget Office.

Note:   The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period. Under that scenario, private-sector health care costs are assumed to grow faster than GDP, rising from about 12 percent in 2009 to 29 percent in 2080.

The factors that tend to boost receipts from individual income taxes as a share of GDP will be partly offset by the continuing rise in health care costs. For this analysis, CBO projects that health care spending excluding that for Medicare and the federal portion of Medicaid will increase from about 12 percent of GDP now to about 29 percent in 2080. That increase would shrink individual income tax revenues in two ways. First, rising health insurance premiums, which are generally tax-exempt, would reduce the portion of compensation that employees receive as taxable wages. Second, deductions related to medical expenses would increase relative to income as health care costs rose, thereby reducing taxable income. (Those deductions include the ones for medical expenses and for health insurance premiums paid by self-employed people.)

The revenue impact of rising health care costs can be estimated by comparing individual income tax revenues under the extended-baseline scenario with what revenues would be if health care costs grew at the same rate as GDP (see Figure 5-4). Faster cost growth for health care

spending is projected to reduce individual income tax receipts as a share of GDP by 0.7 percentage points by 2035. The lower taxable wages that would result from such cost growth would also affect the payroll tax base, reducing projected payroll tax revenues by 0.2 percentage points by 2035. Rising health care costs would slow the growth of revenues under the alternative fiscal scenario as well. (By reducing taxable wages, however, the growth of health care costs would eventually reduce Social Security benefits, offsetting some of the negative budgetary effects of lower payroll tax revenues.)

### Other Sources of Revenue

Under both of CBO's long-term scenarios, revenues from payroll taxes are projected to decline slightly: from about 6.0 percent of GDP this year to 5.6 percent by 2080 (see Figure 5-5). Rising health care costs account for all of the decline. Without that factor, payroll taxes would be expected to remain roughly constant as a share of GDP. The important parameter for payroll taxes—the maximum earnings that are taxable for the Old-Age, Survivors, and Disability Insurance (OASDI) portion of Social

**Figure 5-5.**

# Revenues, by Source, Under CBO's Long-Term Budget Scenarios
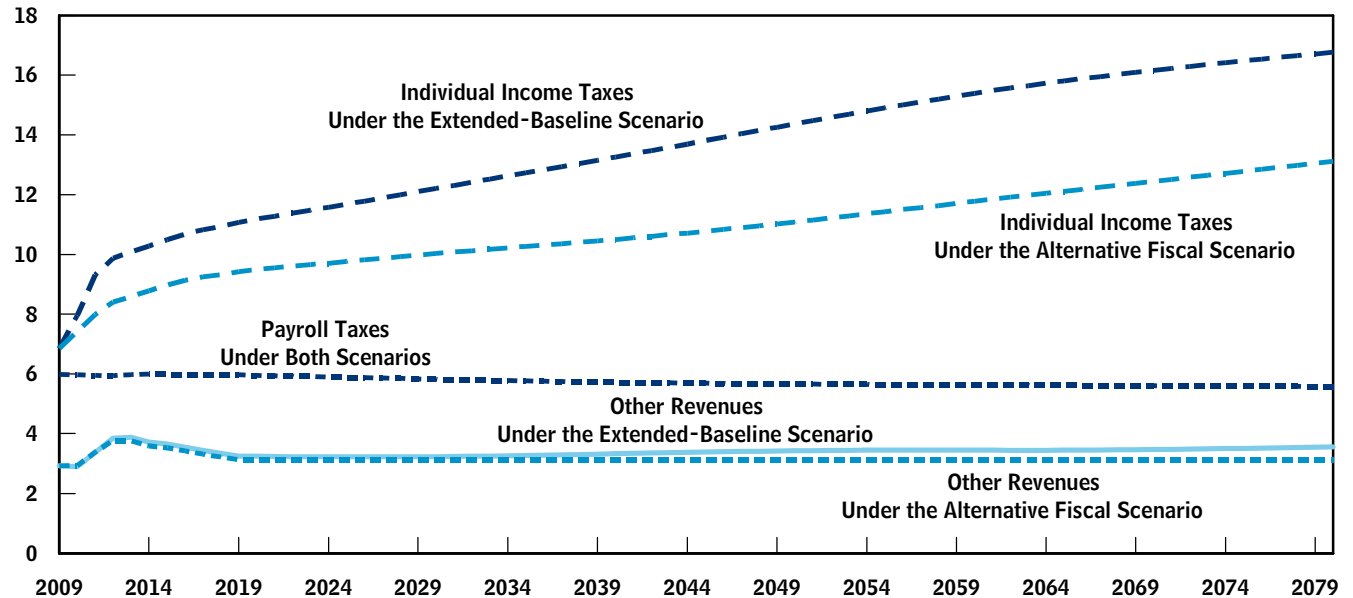
(Percentage of gross domestic product)



Source:    Congressional Budget Office.

Note:    The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period. The alternative fiscal scenario deviates from CBO's baseline projections, beginning in 2010, by incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

Security—is effectively indexed for both real and inflationary growth (unlike the income tax) because the parameter is tied to average wages.[4]

As a whole, other revenues (excluding receipts from individual income taxes and payroll taxes) follow similar paths under the two scenarios. Under the extended-baseline scenario, other revenues as a share of GDP

would rise by 0.3 percentage points between 2009 and 2019 and then would stay about the same through 2035. Most of the rise over the next 10 years is attributable to higher revenues from estate and gift taxes and corporate taxes as a percentage of GDP. Scheduled changes to tax law cause the dollar amount of wealth exempt from the estate tax to fall in 2011. Because that exemption amount is not indexed for inflation or real growth thereafter, a greater share of wealth would be subject to the tax over time. The rise in corporate tax revenues over the next 10 years reflects a projected rebound from historically low levels in 2009 as the economy recovers from the recession. Other revenues are projected to remain fairly constant as a share of GDP from 2019 to 2035 because projected trends in excise taxes and estate and gift taxes roughly offset each other. (Corporate and other miscellaneous revenues are assumed to be constant as a percentage of GDP over that period.) Excise taxes as a share of GDP are expected to decline by between 0.1 and 0.2 percentage points between 2019 and 2035 because most excise taxes are specific levies and thus diminish in
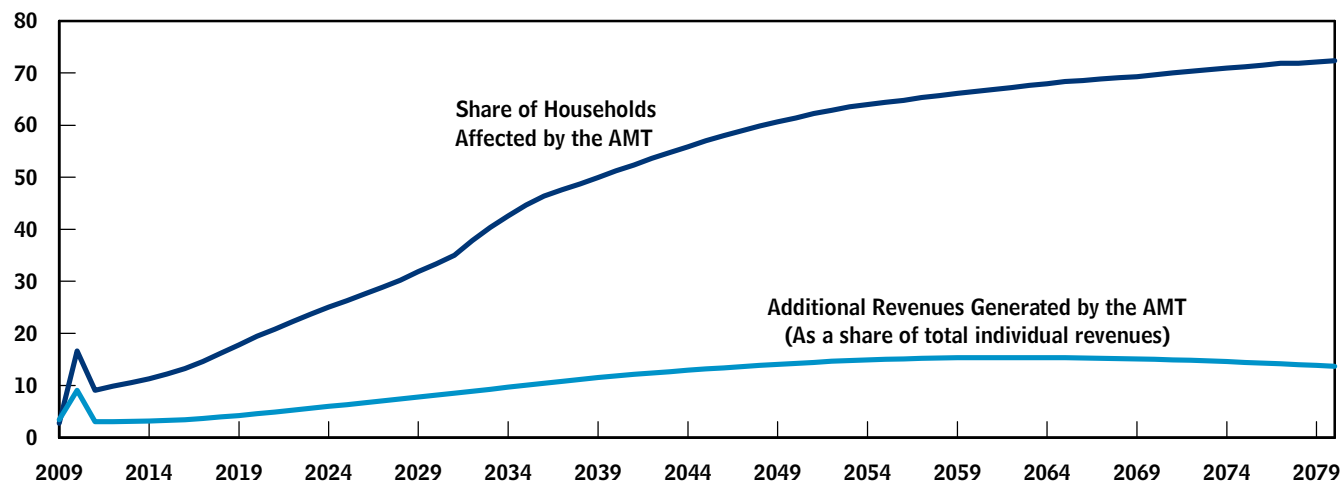
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4. If the maximum earnings for the OASDI portion were indexed only for inflation, payroll taxes would decline over time as a percentage of GDP because a greater share of wages would not be subject to the OASDI tax. Because the taxable maximum is indexed to growth in average earnings, payroll taxes remain constant as a share of GDP if there are no significant changes in the distribution of wages. However, rising wage inequality in recent years has reduced the share of wages subject to the payroll tax. For this report, CBO assumed no significant change in the wage distribution beyond a small expected increase in the share of wages earned at the top of the distribution in the next 10 years. (That assumption follows the assumptions in CBO's 10-year baseline.) Increased wage inequality does not have a large effect on total federal revenues because lower payroll tax receipts are offset by higher receipts from the individual income tax.

**Figure 5-6.**

## The Impact of the Alternative Minimum Tax Under CBO's Extended-Baseline Scenario

(Percent)



Source: Congressional Budget Office.

Note: The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period.

importance as prices increase. That decline in excise taxes as a share of GDP would be offset by an expected increase in estate and gift tax revenues.

Under the alternative fiscal scenario, most other revenues are assumed to hold steady as a percentage of GDP between 2009 and 2035. An exception is corporate income taxes, whose base (corporate profits) is expected to increase as a share of GDP under CBO's 10-year baseline and then remain constant relative to GDP thereafter. By 2035, other revenues relative to GDP under this scenario are projected to be 0.1 percentage point below those under the extended-baseline scenario.

## Implications of the Long-Term Revenue Scenarios

In both revenue paths, inflation and income growth would interact with tax parameters to change the characteristics of the tax system over time. Under the extended-baseline scenario, in particular, the tax system 75 years from now would be very different from the tax system today—many more taxpayers would pay the AMT, marginal and average tax rates would be higher, and the dollar value of some tax parameters would fall sharply in real terms and even more sharply relative to income. As a

result of all of those changes, people at various places in the income distribution would pay a very different percentage of their income in taxes than they do now. Changes to the tax system from the expiration of the EGTRRA and JGTRRA provisions would be less significant than many of the changes that would result from the cumulative effect of growth in price levels and incomes over many years. Under the alternative fiscal scenario, the tax system would also change significantly over the next 75 years, even though that scenario does not include the changes associated with the expiration of EGTRRA and JGTRRA and mitigates much of the growing impact of the AMT by indexing its parameters for inflation.

### Effects of the AMT

The alternative minimum tax would have an especially significant impact on taxpayers under the extended-baseline scenario. By 2035, roughly 10 percent of individual income tax liability (the total amount owed) would be generated by the AMT, compared with about 3 percent today (see Figure 5-6). However, because tax liability under the AMT is calculated as the excess amount over the regular tax owed, the AMT's contribution to receipts gives little indication of the number of people affected by the tax. Roughly 45 percent of the

**Table 5-2.**

# Estimates of the Effective Marginal Federal Tax Rates on Capital and Labor Income Under CBO's Long-Term Budget Scenarios

(Percent)

|  | 2009 | 2035 | 2080 |
|---|---|---|---|
| Marginal Tax Rate on Labor Income |  |  |  |
| Extended-baseline scenario | 28.8 | 34.2 | 35.1 |
| Alternative fiscal scenario | 28.8 | 30.4 | 33.0 |
|  |  |  |  |
| Marginal Tax Rate on Capital Income |  |  |  |
| Extended-baseline scenario | 13.1 | 16.4 | 19.3 |
| Alternative fiscal scenario | 13.1 | 14.2 | 16.5 |

Source:   Congressional Budget Office.

Notes:   The effective federal marginal tax rate on income from labor is the share of the last dollar of earnings in the economy that is taken by federal individual income and payroll taxes. The effective federal marginal tax rate on income from capital is the share of the last dollar of such income that is taken by federal individual income and corporate income taxes.

The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period. The alternative fiscal scenario deviates from CBO's baseline projections, beginning in 2010, by incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

nation's households would be subject to the AMT by 2035—a dramatic increase from the current figure of 3 percent.

The share of households subject to the AMT would continue to rise under the extended-baseline scenario, reaching more than 70 percent by 2080. The AMT's share of revenues would likewise continue to grow beyond 2035, peaking at about 15 percent of individual income tax liability around 2060. At that point, AMT revenue growth would level off as real bracket creep caused a greater share of income to be subject to the top marginal rate under the regular income tax. Not as much bracket creep would occur under the AMT. Therefore, the amount of additional tax liability under the AMT would decline as the amount of tax calculated under the regular tax rose. The AMT would continue to apply to many taxpayers, but the additional revenue attributable to it would diminish.

Under the alternative fiscal scenario, the indexing of the AMT's parameters would mitigate most of the additional revenue growth generated by the tax under the extended-baseline scenario. The share of individual income tax receipts produced by the AMT would hold steady at roughly 3 percent through 2080. The fraction of households subject to the AMT would rise from about 3 percent to about 13 percent by 2080 under this scenario, but many of those households would not pay much in the way of additional tax.

## Marginal Tax Rates on Income from Labor and Capital

Both long-term scenarios would see a rise in marginal tax rates on income from labor and capital. The increase in the marginal tax rate on labor would reduce people's incentive to work, and the increase in the marginal tax rate on capital would reduce their incentive to save. However, the future path of economic output would depend not only on those marginal tax rates but also on the paths of overall spending and revenues. (For further discussion of the interaction between the two scenarios and economic output, see Chapter 1.)

CBO estimates that under the extended-baseline scenario, the marginal tax rate on labor income would increase by 5.4 percentage points between now and 2035 and then rise more slowly between 2035 and 2080 (see Table 5-2). That rate would increase in 2011 because of the expiration of EGTRRA and JGTRRA and then continue to grow because of real bracket creep under the regular tax and the growing number of taxpayers affected by the AMT. The anticipated increase in the marginal tax rate on labor from those aspects of the tax system would be partly offset by the decline in the share of compensation subject to both income and payroll taxes because of the increasing share of compensation expected to be paid as nontaxable health insurance. Under the alternative fiscal scenario, the marginal tax rate on labor income would also rise between now and 2035, but by only about a third as much as under the extended-baseline scenario. That increase would be smaller because the AMT would be indexed and EGTRRA and JGTRRA would not expire.

The marginal tax rate on capital under the extended-baseline scenario would rise by 3.3 percentage points between 2009 and 2035 and by another 2.9 percentage points between 2035 and 2080. Under the alternative fiscal scenario, that marginal tax rate would increase by

1.1 percentage points by 2035 and by a further 2.3 percentage points between 2035 and 2080.

## The Impact of Inflation and Real Income Growth

Over the next 75 years, the cumulative effect of rising prices will sharply reduce the value of some parameters of the tax system that are not indexed for inflation. For example, under the alternative fiscal scenario, the $1,000 child tax credit would be worth less than $300 (measured in 2009 dollars) by 2080. Under the extended-baseline scenario, the estate tax exemption, which will amount to $1 million in 2019, would be worth less than $300,000 (in 2009 dollars) by 2080; the same is true for the amount of mortgage debt eligible for the mortgage interest deduction under both scenarios. The portion of Social Security benefits subject to taxation would increase under both scenarios, from 24 percent now to 59 percent by 2080, because the thresholds for taxing benefits are fixed.

Even tax parameters that are indexed for inflation would lose value relative to income over the long term. The current $3,650 personal exemption would almost quadruple by 2080 because it is indexed for inflation, but income per household is projected to rise 10-fold during that period, so the value of the exemption relative to income would decline by almost 60 percent. The proportion of taxpayers claiming the earned income tax credit would fall from 14 percent this year to less than 5 percent in 2080 under both scenarios as growth in real incomes moved most taxpayers out of the eligibility range for the credit.

The fact that some tax parameters are not indexed and others are indexed only for inflation (but not real income growth) has significant implications beyond the usual tax policy horizon. Locking the current rules in place over the projection period would cause individual income taxes to change differently for taxpayers at different points in the income distribution. For example, a couple

who have two children, earn the median income in 2009, and file a joint tax return pay about 4 percent of their income in individual income taxes (see Table 5-3).[5] By 2080, under the extended-baseline scenario, a similar couple at that point in the distribution would pay 17 percent of their income in individual income taxes, an increase of 13 percentage points. By comparison, if the same couple earned four times the median income, the share of income they paid in individual income taxes would rise from 19 percent in 2009 to 26 percent by 2080 under the extended-baseline scenario, an increase of only 7 percentage points. Income taxes as a share of income would be rising at both points in the income distribution but by a greater proportion for the couple earning the median income.

Despite the rising average tax rates in both cases, taxpayers would be better off in 2080 because the amount of income at any given point in the income distribution would have risen significantly. Under the extended-baseline scenario, pretax income for the above couple earning the median income would have grown by 300 percent and after-tax income by 260 percent (both measured in 2009 dollars). The rise in income would dominate the increase in average tax rates.

Under the alternative fiscal scenario, average tax rates would also grow faster for taxpayers whose income put them toward the bottom of the distribution. But the increase in rates would be smaller at most points in the distribution under that scenario than under the extended-baseline scenario because the AMT would not be growing as quickly. Under both scenarios, taxes as a share of income for households at various points in the income distribution would be very different than they are today.

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5. The examples assume that all income received by taxpayers is labor income. For more details about the calculations, see Table 5-3.

**Table 5-3.**

# Individual Income and Payroll Taxes as a Share of Income Under CBO's Long-Term Budget Scenarios

| | Income (2009 dollars) | Taxes as a Share of Income (Percent) | | | |
|---|---|---|---|---|---|
| | | **Extended-Baseline Scenario** | | **Alternative Fiscal Scenario** | |
| | | Income Taxes | Income and Payroll Taxes | Income Taxes | Income and Payroll Taxes |
| **Taxpayer Filing a Single Return** | | | | | |
| Half the Median Income | | | | | |
| 2009 | 20,400 | 1 | 10 | 1 | 10 |
| 2035 | 31,100 | 3 | 11 | 2 | 10 |
| 2080 | 61,300 | 6 | 13 | 4 | 11 |
| Median Income | | | | | |
| 2009 | 40,700 | 7 | 18 | 7 | 18 |
| 2035 | 62,300 | 8 | 18 | 7 | 18 |
| 2080 | 122,600 | 16 | 26 | 11 | 21 |
| Twice the Median Income | | | | | |
| 2009 | 81,500 | 11 | 26 | 11 | 24 |
| 2035 | 124,500 | 15 | 27 | 13 | 25 |
| 2080 | 245,100 | 19 | 31 | 16 | 29 |
| Four Times the Median Income | | | | | |
| 2009 | 163,000 | 15 | 26 | 15 | 26 |
| 2035 | 249,000 | 21 | 31 | 18 | 28 |
| 2080 | 490,300 | 23 | 32 | 22 | 32 |

**Continued**

**Table 5-3.**                                                                                          **Continued**

## Individual Income and Payroll Taxes as a Share of Income Under CBO's Long-Term Budget Scenarios

| | | Taxes as a Share of Income (Percent) | | | |
|---|---|---|---|---|---|
| | | Extended-Baseline Scenario | | Alternative Fiscal Scenario | |
| | Income (2009 dollars) | Income Taxes | Income and Payroll Taxes | Income Taxes | Income and Payroll Taxes |
| | | **Married Couple with Two Children Filing a Joint Return**[a] | | | |
| Half the Median Income | | | | | |
| 2009 | 49,000 | -8 | 1 | -8 | 1 |
| 2035 | 74,500 | 4 | 12 | 1 | 9 |
| 2080 | 146,200 | 9 | 17 | 4 | 11 |
| Median Income | | | | | |
| 2009 | 98,100 | 4 | 16 | 4 | 16 |
| 2035 | 148,900 | 11 | 22 | 7 | 18 |
| 2080 | 292,300 | 17 | 27 | 11 | 22 |
| Twice the Median Income | | | | | |
| 2009 | 196,200 | 11 | 21 | 11 | 21 |
| 2035 | 297,900 | 20 | 28 | 15 | 23 |
| 2080 | 584,600 | 21 | 29 | 21 | 29 |
| Four Times the Median Income | | | | | |
| 2009 | 392,300 | 19 | 26 | 19 | 26 |
| 2035 | 595,800 | 23 | 29 | 22 | 28 |
| 2080 | 1,169,300 | 26 | 32 | 24 | 30 |

Source:   Median income amounts are derived from the March 2008 Current Population Survey and are measured in 2009 dollars. All income is assumed to be from compensation, which includes employer-provided health insurance and the employer's share of the payroll tax.

Notes:   Taxpayers are assumed to itemize if implied itemized deductions are greater than the standard deduction.

State and local taxes are assumed to be 8 percent of wages; other deductions are assumed to be 14 percent of wages.

The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2009 to 2019 and then extending the baseline concept for the rest of the projection period. The alternative fiscal scenario deviates from CBO's baseline projections, beginning in 2010, by incorporating some changes in policy that are widely expected to occur and that policy-makers have regularly made in the past.

a.   The examples for the married couple assume that only one spouse earns income.

# A
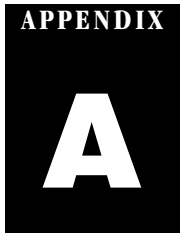
# Demographic and Economic Assumptions Used in CBO's Analysis

**A** set of demographic and economic assumptions underlies the projections that make up the Congressional Budget Office's (CBO's) long-term budget outlook for the years 2009 to 2083. To project overall trends in demographics and disability, CBO adopted the assumptions of the Social Security trustees—specifically, for this analysis, the intermediate assumptions in the 2009 trustees' report on the aggregate fertility rate in the United States, the rate of decline in mortality, levels of immigration and emigration, and the incidence and termination rates in the Social Security Disability Insurance program.[1] CBO's long-term economic assumptions are based on the assumptions used in developing its baseline budget projections and on historical economic trends.

For estimates covering fiscal years 2009 through 2019, CBO used economic assumptions consistent with those in its March 2009 economic forecast, which underlies its current baseline budget projections for the same period.[2] The assumptions for 2019 in turn provided the jump-off point in developing assumed values for the relevant economic variables for the projection period's later years (2020 to 2083).

CBO chose assumptions about rates of interest, inflation, and unemployment directly. In contrast, CBO did not

make specific assumptions about the growth of GDP or the rate of growth of earnings but instead derived those variables by using other economic and demographic assumptions. (Annual values for selected economic assumptions can be found in the supplementary data for this report on CBO's Web site, www.cbo.gov.) The assumptions underlying projections of the growth of health care costs are discussed in Chapter 2.

## Assumptions About Interest, Inflation, and Unemployment for 2020 and Later

For its projections after the 10-year baseline period, CBO assumed that the real (inflation-adjusted) rate of interest on federal debt held by the public would, after a transition period, be 3.0 percent a year, about equal to the average rate observed over the past 50 years. CBO used the same value for the discount rate in its present-value calculations. CBO also assumed that annual inflation—as measured by growth in the consumer price index for urban wage earners and clerical workers (CPI-W)—would be 2.0 percent and that over the long run the unemployment rate would be 4.8 percent.

## Assumptions Underlying Projections of Gross Domestic Product and Earnings

CBO projected that from 2020 through the end of the projection period, real GDP would grow at an average annual rate of 2.2 percent and real earnings would grow at an average annual rate of 1.4 percent. Those estimates

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1. 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).

2. See Congressional Budget Office, *A Preliminary Analysis of the President's Budget and an Update of CBO's Budget and Economic Outlook* (March 2009).

were based on CBO's demographic assumptions, as noted above, and on four underlying economic assumptions:

■ **Growth of Productivity.** CBO assumed that over the long term, total factor productivity (average real output per unit of combined labor and capital services) would grow at an average annual rate of 1.3 percent. CBO used that assumption in an economic model that includes projections of growth in the supply of labor and capital to compute the resulting growth in labor productivity (measured as growth in output per hour worked). Projected labor productivity growth averages 1.9 percent annually. Labor productivity does not translate directly into earnings growth.

■ **Changes in the Ratio of Taxable Earnings to Total Compensation.** CBO assumed that over the projection period, the share of compensation that workers received as nontaxable health benefits would grow at the same rate as other (non-Medicare, non-Medicaid) health care spending, which would reduce the average rate of growth of taxable earnings.[3] Specifically, as a result of the projected slowdown in cost growth for health care spending, the projected annual change in earnings as a share of compensation would slow from about -0.25 percent in 2020 to about -0.05 percent in

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3.   The share of other nontaxable benefits was assumed to remain constant.

2083, or an average of -0.13 percent over that period. A decline occurring at such a pace would increase the projected annual growth of real wages by the same amount, relative to earnings that remained a constant share of compensation.

■ **Growth in Average Hours Worked.** CBO assumed that, in general, the number of hours worked by people in the labor force would remain constant. However, different segments of the population work, on average, different numbers of hours. (For example, men tend to work more hours than women, and people in their 30s tend to work more hours than people in their 50s.) As a result, CBO's projections of total average hours worked vary slightly because of projected changes in the composition of the labor force.

■ **Difference Between Growth Measured by the GDP Deflator and by the CPI-W.** The GDP deflator and the CPI-W are two different measures of inflation. The GDP deflator is a measure of the level of prices of all final goods and services produced; it is one of the determinants of labor productivity. CBO uses the CPI-W to translate nominal earnings growth into real earnings growth. When the GDP deflator grows more slowly than the CPI-W, the projected growth of real earnings is reduced. CBO assumed that the gap, and thus the reduction in real earnings growth, would average 0.3 percentage points.

# B

# Changes in CBO's Long-Term Projections Since December 2007

**T**he long-term paths of outlays, revenues, health care spending, and debt that this report presents are similar to those published in the Congressional Budget Office's (CBO's) 2007 long-term outlook.[1] However, CBO now projects that in fiscal years 2009 and 2010, federal spending will be extraordinarily high and revenues will be unusually low. As a result, deficits in those years will be extremely large, an outcome that was not foreseen in 2007. Federal debt as a percentage of gross domestic product (GDP) is now projected to soar even in the short run.

## Changes in Projections Under the Extended-Baseline Scenario

The extended-baseline scenario adheres closely to current law, following CBO's baseline budget projections for the first 10 years and then extending the baseline concept for the rest of the long-term projection period.
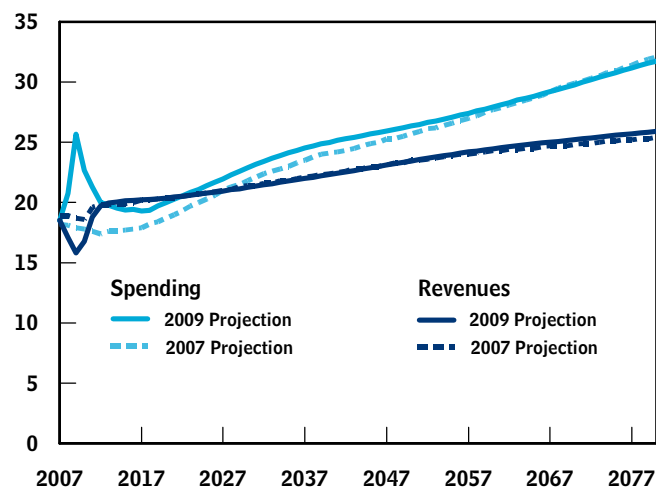
### Spending

In 2020, primary (noninterest) spending in CBO's current projections is about 1 percentage point of GDP higher than it was in the 2007 projections, but that gap shrinks in later years (see Figure B-1). The difference stems primarily from an assumption that spending for programs other than Social Security, Medicare, and Medicaid will be higher; in CBO's current projections, that spending relative to GDP is consistently 0.8 percentage points higher than it was in 2007. Most of that difference arises because projected discretionary spending is greater, as a percentage of GDP, at the end of the 2009–2019 period. For the first few decades that the new projections cover, federal spending for Medicare is also slightly higher as a share of GDP because, compared with the 2007 pro-

jections, CBO's current estimates of GDP have declined by a greater amount than have projections of Medicare spending. However, CBO now assumes a slightly faster slowdown in excess cost growth for Medicare and Medicaid (that is, in the amount by which the rate of growth of the programs' costs per beneficiary—after an adjustment for age—exceeds the growth of GDP per capita) than it did in 2007, so after 2055, projected federal spending for Medicare and Medicaid is lower than it was in 2007. Projected outlays for Social Security in 2030 and later are

**Figure B-1.**

## Revenues and Spending Excluding Interest Under CBO's Extended-Baseline Scenario
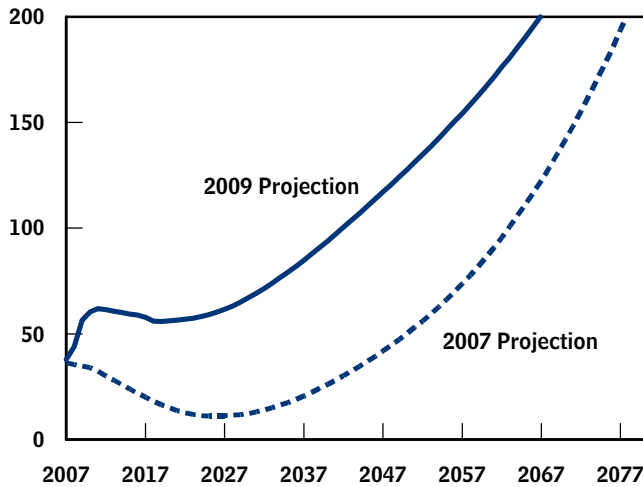
(Percentage of gross domestic product)



Source: Congressional Budget Office.

Note: The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections and then extending the baseline concept for the rest of the projection period.

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1. See Congressional Budget Office, *The Long-Term Budget Outlook* (December 2007).

## Figure B-2.

## Federal Debt Held by the Public Under CBO's Extended-Baseline Scenario

(Percentage of gross domestic product)



Source:    Congressional Budget Office.

Note:    The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections and then extending the baseline concept for the rest of the projection period.

also lower—by an average of 0.3 percentage points relative to GDP—than in the 2007 projections, primarily because of changes in assumptions about the number and age distribution of future immigrants that resulted in higher projections of GDP.[2] The net effect of those changes is that CBO's current projections of total non-interest spending for 2060 and later are similar to the ones it made in 2007.

### Revenues

In general, CBO's current long-term projections of revenues as a share of GDP are marginally higher than its 2007 estimates (see Figure B-1). The new projections of individual income taxes are higher because of more recent data on tax returns and pension holdings. However, that increase is moderated by reductions in projections of individual income tax receipts stemming from updates in

2.    See Congressional Budget Office, "Changes in CBO's Long-Term Social Security Projections Since December 2007," Appendix A in *Updated Long-Term Projections for Social Security* (August 2008), pp. 31–32.

CBO's economic forecast since the 2007 report and from technical changes in CBO's tax models. Changes in the way CBO estimates estate taxes also result in lower revenue projections today than in 2007. Nevertheless, on net, projected federal revenues at the end of the projection period are 0.5 percentage points higher relative to GDP than they were in 2007.

### Debt

Federal debt is now projected to be much greater relative to GDP than it was in 2007 (see Figure B-2). That change has occurred mostly because of new projections of extraordinarily high short-term deficits but also because of higher projected primary spending over the long term. In 2007, CBO projected that under the extended-baseline scenario, debt would fall substantially as a share of GDP, to 11 percent in 2025, and would not reach 100 percent of GDP until 2063. In CBO's current projection, debt would remain elevated and cross the 100-percent-of-GDP threshold in 2042.

## Figure B-3.

## Revenues and Spending Excluding Interest Under CBO's Alternative Fiscal Scenario
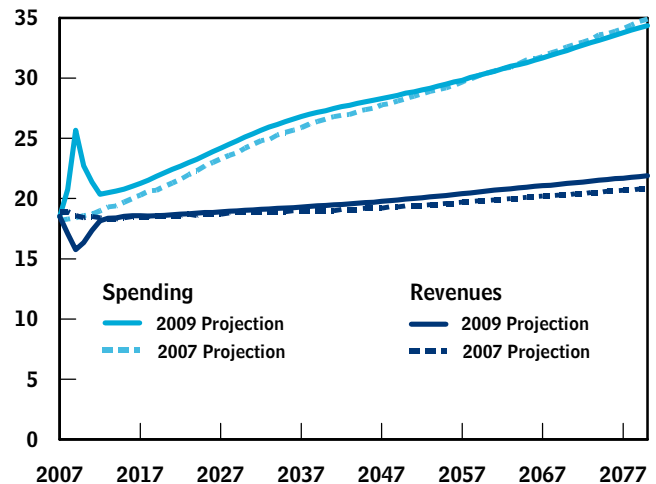
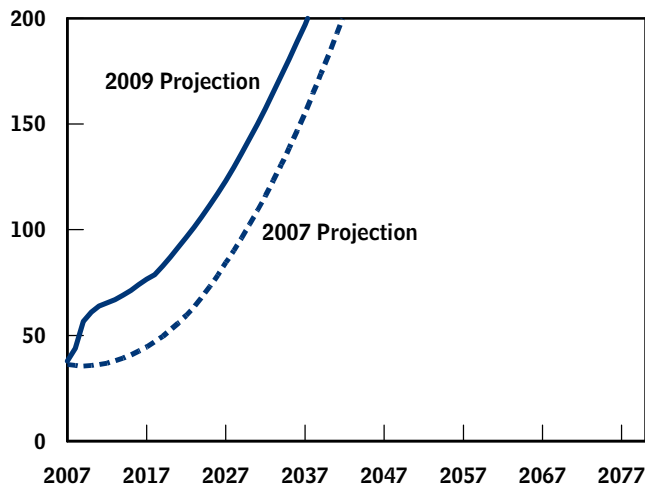(Percentage of gross domestic product)



Source:    Congressional Budget Office.

Note:    The alternative fiscal scenario deviates from CBO's baseline projections by incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

**Figure B-4.**

## Federal Debt Held by the Public Under CBO's Alternative Fiscal Scenario

(Percentage of gross domestic product)



Source:    Congressional Budget Office.

Note:   The alternative fiscal scenario deviates from CBO's baseline projections by incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

## Changes in Projections Under the Alternative Fiscal Scenario

The alternative fiscal scenario represents another interpretation of what it would mean to continue today's fiscal policy. This scenario deviates from CBO's baseline even during the first 10 years of the projection period because it incorporates some policy changes that are widely expected to occur and that policymakers have regularly made in the past.

**Spending**

The pattern of differences between CBO's current and 2007 projections of spending under the alternative fiscal scenario is almost the same as under the extended-baseline scenario, although the variations from the 2007 projections are marginally smaller under the alternative view. After 2020, spending for programs other than Social Security, Medicare, and Medicaid is projected to be 0.6 percentage points higher (relative to GDP) than CBO estimated in 2007, rather than the 0.8-percentage-point difference that results under the extended-baseline scenario (see Figure B-3).

**Revenues**

Projections of revenues as a share of GDP for 2020 are the same as those CBO made in 2007. However, the projected growth of revenues is higher in the current projections than it was in CBO's 2007 estimates because projected receipts from individual income taxes are higher for the same reasons that apply to such projections under the extended-baseline scenario (see Figure B-3). Projections of individual income tax revenues—and thus of total revenues—in 2080 relative to GDP are 1 percentage point higher than they were in 2007. (Under the alternative fiscal scenario, revenues from the estate tax are assumed to be constant as a share of GDP, so in contrast to the outcome under the extended-baseline scenario, the changes CBO has made in its estate-tax modeling do not affect its projections of revenues.)

**Debt**

Even in 2007, CBO projected that federal debt would quickly accelerate to unsustainable levels under the alternative fiscal scenario, reaching 100 percent of GDP in 2030. Because of the greater short-term accumulation of debt and higher projected spending that CBO now foresees, debt under this scenario is estimated to reach 100 percent of GDP in 2023 (see Figure B-4).

## Changes in Projections of Health Care Spending

The methods that CBO used to project total health care spending for this analysis are consistent with those it used in 2007.[3] The growth in health care spending that CBO now estimates for the long term is similar to what it projected in 2007, but total health care spending is estimated to account for a slightly larger share of GDP in the first decades of the projection period and a slightly smaller share in later decades.
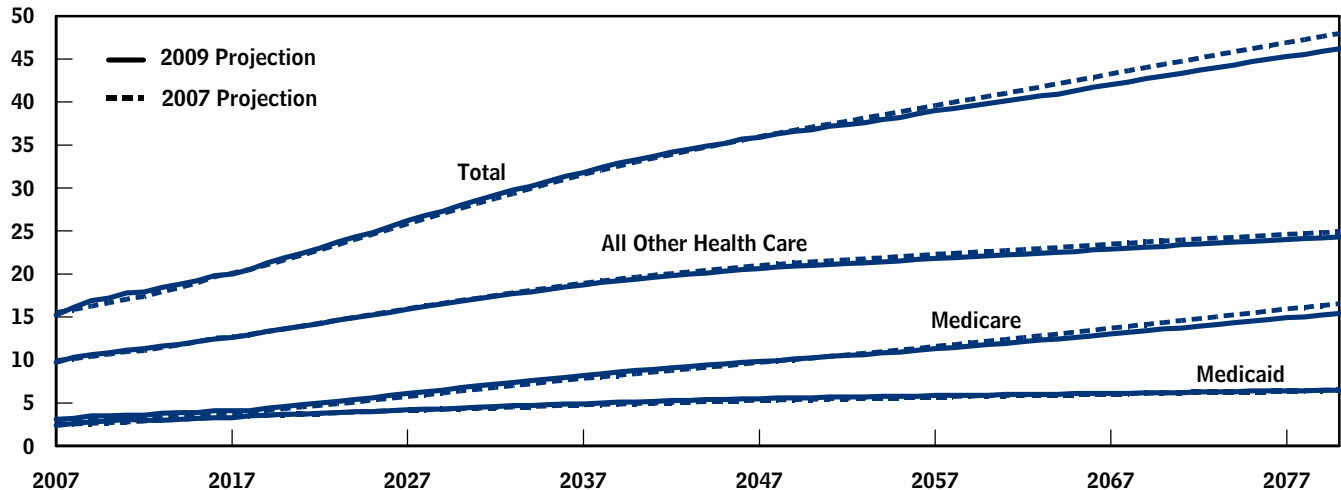
**Other Health Care Spending**

The projections of other (that is, non-Medicare, non-Medicaid) health care spending presented in this report and in the 2007 outlook rely, in part, on the historical

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3.   Total spending for health care comprises spending for health services and supplies as defined in the national health expenditure accounts maintained by the Centers for Medicare and Medicaid Services.

**Figure B-5.**

## Total Spending for Health Care Under CBO's Extended-Baseline Scenario

(Percentage of gross domestic product)



Source:    Congressional Budget Office.

Note:    Total spending for health care comprises spending for health services and supplies as defined in the national health expenditure accounts maintained by the Centers for Medicare and Medicaid Services. Amounts for Medicare include beneficiaries' premiums and amounts paid by the states representing part of their share of the savings from shifting some Medicaid spending for prescription drugs to Part D of Medicare. Amounts for Medicaid include spending by the states.

The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections and then extending the baseline concept for the rest of the projection period.

rate of growth in spending for other health care. CBO assumed for its 2007 projections that the average rate of excess cost growth would equal the historical average for the 1975–2005 period—2.0 percentage points. However, excess cost growth was lower in the two additional years of data now available from the national health expenditure accounts, and CBO has thus based its current projections in part on the 1.8-percentage-point average for the years 1975 to 2007 (see Table 2-3 on page 27). CBO assumed that the rate of excess cost growth for other health care spending at the end of the 75-year projection period would be the same as it was for that year in the 2007 projections. That assumption, combined with the lower rate of excess cost growth at the beginning of the period, led to an overall average rate of excess cost growth equal to 0.5 percentage points in CBO's current projections for other health care spending; in the 2007 analysis, that rate was 0.6 percentage points. As a result, other health care spending grows more slowly in CBO's current outlook than was previously projected.

**Total Health Care Spending**

Total health care spending under the extended-baseline scenario is now projected to be slightly higher as a percentage of GDP through 2046 than CBO projected in 2007 and slightly lower in the years thereafter. The increase through 2046 is driven by a rise in spending for Medicare as a percentage of GDP relative to CBO's previous long-term projections. (That increase occurs because CBO's estimate of spending for Medicare has declined by less than its estimate of the size of the overall economy.) Therefore, such spending accounts for a larger share of GDP than it did in CBO's 2007 projections. The smaller share in the years after 2046 results from assumptions about a slower rate of excess cost growth for Medicare, Medicaid, and other health care spending (see Figure B-5).

The differences between CBO's current projections of total health care spending under the alternative fiscal scenario and those made in 2007 under that scenario are similar to the differences under the extended-baseline scenario.