The Long-Term Budget Outlook

Percentage of Gross Domestic Product

Actual | Projected

40

30

20

10

0

Medicare and Medicaid

Social Security

Other Spending (Excluding debt service)

1962 1972 1982 1992 2002 2012 2022 2032 2042 2052 2062 2072 2082

Federal Spending

DECEMBER 2007

CBO

The Long-Term Budget Outlook

December 2007

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.

The figure on the cover shows federal spending under the Congressional Budget Office's (CBO's) alternative fiscal scenario, which is described in Chapter 1. That scenario incorporates some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

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

Preface

This Congressional Budget Office (CBO) report continues CBO's examination of the pressures facing the federal budget over the coming decades. Under current policies, rapidly rising health care costs and an aging population will sharply increase federal spending for Medicare, Medicaid, and Social Security. This report presents the agency's projections of federal spending and revenues over the next 75 years.

Peter R. Orszag
Director

December 2007

Contents

Tables

Figures

Figures (Continued)

Boxes

The Federal Budget Outlook Over the Long Run

Introduction and Summary

Significant uncertainty surrounds long-term fiscal projections, but under any plausible scenario, the federal budget is on an unsustainable path—that is, federal debt will grow much faster than the economy over the long run. In the absence of significant changes in policy, rising costs for health care and the aging of the U.S. population will cause federal spending to grow rapidly. If federal revenues as a share of gross domestic product (GDP) remain at their current level, that rise in spending will eventually cause future budget deficits to become unsustainable. To prevent deficits from growing to levels that could impose substantial costs on the economy, revenues must rise as a share of GDP, or projected spending must fall—or some combination of the two outcomes must be achieved.

For decades, spending on Medicare and Medicaid—the federal government's major health care programs—has been growing faster than the economy, as has health spending in the private sector. The rate at which health care costs grow relative to national income—rather than the aging of the population—will be the most important determinant of future federal spending. The Congressional Budget Office (CBO) projects that under current law, federal spending on Medicare and Medicaid measured as a share of GDP will rise from 4 percent today to 12 percent in 2050 and 19 percent in 2082—which, as a share of the economy, is roughly equivalent to the total amount that the federal government spends today. (Unless otherwise indicated, all years referred to in this report are calendar years.) The bulk of that projected increase in health spending reflects higher costs per beneficiary rather than an increase in the number of beneficiaries associated with an aging population.

The rise in health care spending is the largest contributor to the growth projected for federal spending. Therefore, efforts to reduce overall government spending will require potentially painful actions to slow the rise of health care costs. There may be ways, however, in which policymakers can reduce costs without harming the health of Medicare and Medicaid beneficiaries. Changing those programs in ways that reduce the growth of costs—which will be difficult, in part because of the complexity of health policy choices—is ultimately the nation's central long-term challenge in setting federal fiscal policy.

The aging of the population, though not the primary factor driving higher government spending in the future, will nonetheless exacerbate fiscal pressures. For example, future growth in spending on Social Security will largely reflect demographic changes; CBO projects that such spending will increase from about 4 percent of GDP today to 6 percent in 25 years and then will roughly stabilize at that rate thereafter. Federal spending on programs other than Medicare, Medicaid, and Social Security—including national defense and a wide variety of domestic programs—is likely to contribute far less, if anything, to the upward trend in federal outlays as a share of GDP.

All of those projections raise fundamental questions of economic sustainability. If outlays increased as projected and revenues did not grow at a corresponding rate, deficits would climb and federal debt would grow significantly. Substantial budget deficits would reduce national saving, which would lead to an increase in borrowing from abroad and lower levels of domestic investment that in turn would constrain income growth in the United States. In the extreme, deficits could seriously harm the economy. Such economic damage could be averted by putting the nation on a sustainable fiscal course, which would require some combination of less spending and more revenues than the amounts now projected. Making such changes sooner rather than later would lessen the risk that an unsustainable fiscal path poses to the economy.

Table 1-1.

Assumptions About 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 using 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 2017, then remains at the projected 2017 level as a share of GDP	Remains at the 2007 share of GDP
	Assumptions About Revenue Sources	
Individual Income Taxes	As scheduled under current law	2007 law with AMT parameters indexed for inflation after 2007
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 and Estate and Gift Taxes	As scheduled under current law	Constant as a share of GDP for the entire period
Other Revenues	As scheduled under current law through 2017; constant as a share of GDP thereafter	As scheduled under current law through 2017; 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 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the 75-year projection period, to 2082. The alternative fiscal scenario deviates from CBO's baseline projections even during the next 10 years, incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

      GDP = gross domestic product; 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 is instead modeled with the revenue portion of the scenarios.

Long-term projections rely on numerous assumptions about economic and fiscal factors, and many different assumptions are possible. In this report, CBO presents two scenarios that are based on different assumptions about the federal budget over the next 75 years (see Table 1-1).

■ The "extended-baseline scenario" adheres most closely to current law, following CBO's 10-year baseline for the first 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 changes in policy that are widely expected to occur and that policymakers have regularly made in the past. Different analysts may perceive the underlying intention of current policy differently, however, and other interpretations are possible.

---

1. CBO's baseline is a benchmark for measuring the budgetary effects of proposed changes in federal revenues or spending. The projections of budget authority, outlays, revenues, and the deficit or surplus that it comprises are calculated according to rules set forth in the Balanced Budget and Emergency Deficit Control Act of 1985.

Figure 1-1.

Revenues and Spending Excluding Interest, by Category, as a Percentage of Gross Domestic Product Under CBO's Long-Term Budget Scenarios
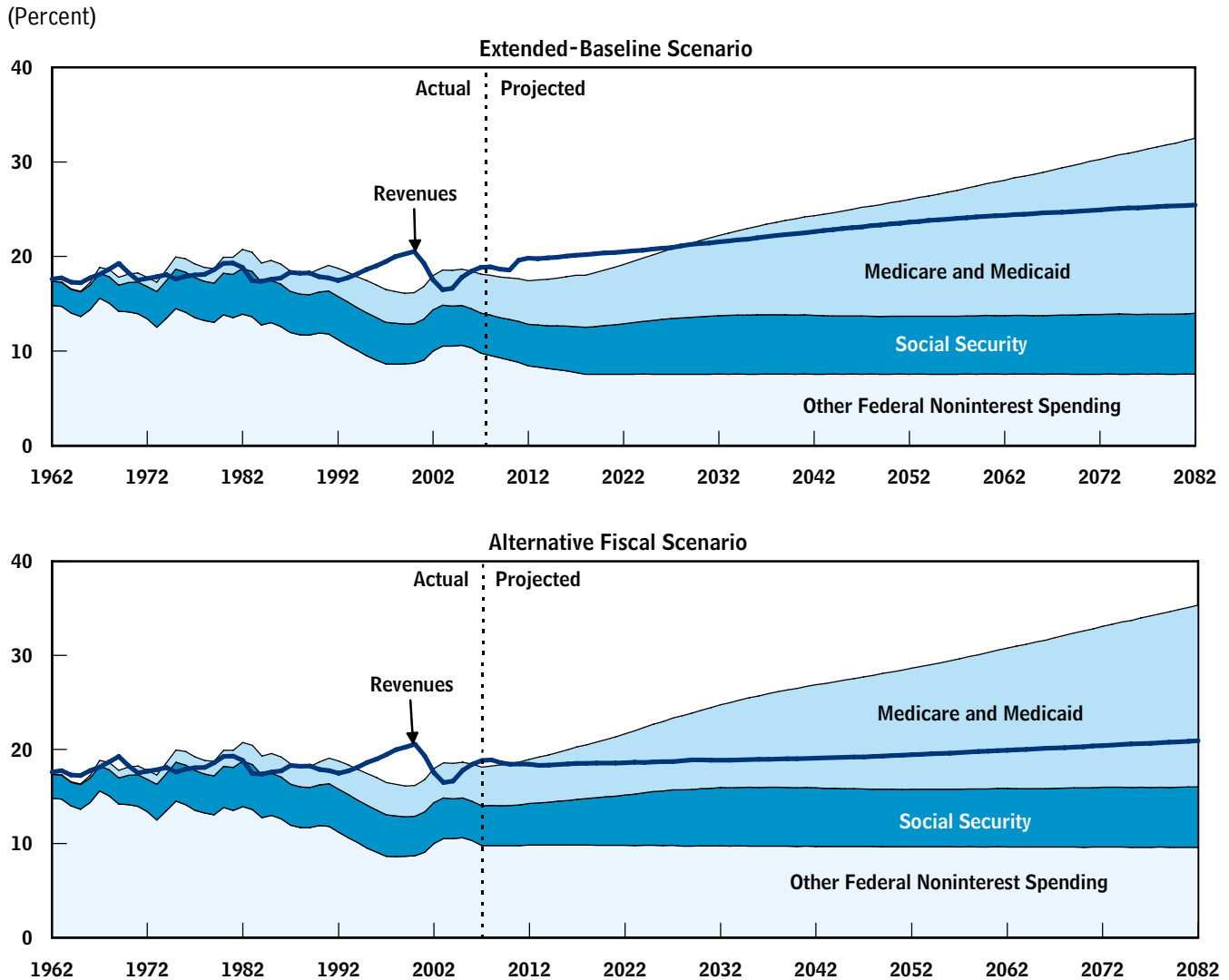
(Percent)

Source: Congressional Budget Office.

Note: The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the 75-year projection period, to 2082. The alternative fiscal scenario deviates from CBO's baseline projections even during the next 10 years, incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

Under both scenarios, total primary spending (all spending except interest payments on federal debt) would grow sharply in coming decades, CBO estimates, rising from its current level of 18 percent of GDP to more than 30 percent by 2082, the end of the 75-year period that CBO's long-term projections span (see Figure 1-1). If spending policy did not change and outlays did indeed grow to such levels relative to the economy, maintaining a sustainable budget path would require that federal taxation rise similarly. In the past half-century, total federal revenues have averaged 18 percent of GDP and peaked at nearly 21 percent, well below projected levels of future spending.

Ultimately, both scenarios involve an unsustainable fiscal path, but they differ significantly in their projections of

Figure 1-2.

Federal Debt Held by the Public as a Percentage of Gross Domestic Product Under CBO's Long-Term Budget Scenarios

(Percent)

Source: Congressional Budget Office.

Note: The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the 75-year projection period, to 2082. The alternative fiscal scenario deviates from CBO's baseline projections even during the next 10 years, incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

revenues and in the extent and timing of substantial increases in federal debt:

■ Under the extended-baseline scenario, revenues would reach substantially higher levels than have ever been recorded during the nation's history.[2] Under this scenario, the 2001 and 2003 legislation that lowered tax rates would expire as scheduled at the end of 2010, and the impact of the alternative minimum tax (AMT) would expand substantially over time (because its parameters, unlike most parts of the tax system, are not indexed to inflation).[3] In addition, ongoing increases in real income (that is, income after an adjustment for inflation) would push taxpayers into higher income tax brackets. As a result, by 2082, federal revenues would reach 25 percent of GDP. With

the projected revenue increases embodied in this scenario, federal debt held by the public would fall relative to GDP until 2026. Then it would start to climb, and if federal spending were allowed to grow as projected, policymakers would have to raise revenues further to keep the growth of debt from outpacing the growth of the economy (see Figure 1-2 and Table 1-2).

■ Under the alternative fiscal scenario, by contrast, none of the changes to tax law scheduled after 2007 would take effect, and the AMT would be indexed to inflation. As a result, revenues would remain roughly constant as a share of GDP. The combination of roughly constant revenues and significantly rising expenditures would quickly create an unstable fiscal situation.

---

2. The projections that make up CBO's baseline 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 remained in place. For details, see Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2008 to 2017* (January 2007), p. 5.

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

Table 1-2.

Projected Spending and Revenues as a Percentage of Gross Domestic Product Under CBO's Long-Term Budget Scenarios

(Percent)

	2007[a]	2030	2050	2082
	Extended-Baseline Scenario			
Primary Spending				
Social Security	4.3	6.1	6.1	6.4
Medicare[b]	2.7	5.6	8.9	14.8
Medicaid	1.4	2.5	3.1	3.8
Other noninterest	9.9	7.7	7.6	7.6
Subtotal, Primary Spending	18.2	21.8	25.7	32.5
Interest	1.7	0.6	2.3	11.0
Total, Federal Spending	20.0	22.4	28.1	43.6
Revenues	18.8	21.4	23.5	25.5
Deficit (-) or Surplus				
Primary deficit (-) or surplus	**0.5**	**-0.4**	**-2.3**	**-7.1**
Total deficit	**-1.2**	**-1.0**	**-4.6**	**-18.1**
	Alternative Fiscal Scenario			
Primary Spending				
Social Security	4.3	6.1	6.1	6.4
Medicare[b]	2.7	5.9	9.4	15.6
Medicaid	1.4	2.5	3.1	3.7
Other noninterest	9.9	9.8	9.7	9.6
Subtotal, Primary Spending	18.2	24.2	28.3	35.3
Interest	1.7	4.8	13.6	40.1
Total, Federal Spending	20.0	29.0	41.8	75.4
Revenues	18.8	18.9	19.4	20.9
Deficit (-) or Surplus				
Primary deficit (-) or surplus	**0.5**	**-5.3**	**-8.9**	**-14.4**
Total deficit	**-1.2**	**-10.1**	**-22.5**	**-54.5**

Source: Congressional Budget Office.

Note: The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the 75-year projection period, to 2082. The alternative fiscal scenario deviates from CBO's baseline projections even during the next 10 years, incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

a.   For 2007, numbers are actual and on a fiscal year basis.

b.   Spending for Medicare beneficiaries is net of premiums.

A useful metric for the size of the adjustments in either spending or revenues required to avoid unsustainable increases in government debt is provided by the so-called fiscal gap. The gap measures the immediate change in spending or revenues necessary to generate a stable fiscal trajectory over a given period. Under the extended-baseline scenario, the fiscal gap would amount to 0.6 per-

cent of GDP through 2057 and 1.7 percent of GDP through 2082 (see Box 1-1). In other words, under that scenario, an immediate and permanent reduction in spending or an immediate and permanent increase in revenues of 1.7 percent of GDP—or an even larger percentage, if the change in policy was delayed—would be necessary to create a sustainable fiscal path through 2082.

Box 1-1.

The Fiscal Gap

One perspective on the federal government's financial status can be garnered by examining projections of annual revenues and outlays. Present-value measures augment those annual data by summarizing the expected long-term flows of receipts 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 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 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 2007 dollars, and then summing the resulting series. The same method is applied to the projected stream of outlays.[1] CBO also computes a present value for future gross domestic product (GDP). (The table to the right presents the present value of outlays and revenues as a share of the present value of GDP.)

Federal Fiscal Gap Under CBO's Long-Term Budget Scenarios

(Percentage of gross domestic product)

Projection Period	Revenues	Outlays	Fiscal Gap
Extended-Baseline Scenario			
25 Years (2008-2032)	20.2	19.5	-0.7
50 Years (2008-2057)	21.3	21.9	0.6
75 Years (2008-2082)	22.1	23.8	1.7
Alternative Fiscal Scenario			
25 Years (2008-2032)	18.6	21.4	2.8
50 Years (2008-2057)	18.8	24.1	5.2
75 Years (2008-2082)	19.2	26.1	6.9

Source: Congressional Budget Office.

Note: The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the 75-year projection period, to 2082. The alternative fiscal scenario deviates from CBO's baseline projections even during the next 10 years, incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

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 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 2007 debt-to-GDP ratio.)

Under the alternative fiscal scenario, the fiscal gap would be much larger, amounting to 5.2 percent of GDP through 2057 and 6.9 percent through 2082.

Under both scenarios, growing budget deficits and the resulting increases in federal debt could lead to slower economic growth. The effects would be most striking under the alternative fiscal scenario—debt would begin to climb rapidly and would reach roughly 300 percent of GDP by 2050. That rising federal debt would affect the capital stock (businesses' equipment and structures as well as housing). In CBO's estimation, debt would reduce the capital stock—compared with what it would be if deficits were held to their share of the economy in 2007—by 40 percent in 2050 and would lower real gross

national product (GNP) by 25 percent.[4] Although the outlook for the economy under the extended-baseline scenario would be more auspicious in the near term, over the long run, rising deficits would also lead to significant economic harm.

Differences between the economic costs of one policy for achieving long-term fiscal sustainability and those of another are generally modest in comparison with the costs of allowing deficits to grow to unsustainable levels. In particular, the difference in economic costs between acting to address projected deficits (by either reducing spending or raising revenues) and failing to do so is generally much larger than the cost implications of pursuing one approach to deficit reduction rather than another. Nonetheless, a policy of reducing the growth of spending would in general impose smaller macroeconomic costs than one of increasing tax rates, although the economic effects would depend in part on the specific measures that were adopted.

On the spending side of the budget, the most significant cause of future long-term growth—health care costs—is also particularly complicated to address. Policymakers face both challenges and opportunities in trying to reduce those costs. Over long periods, cost growth per beneficiary in the Medicare and Medicaid programs has tended to track cost trends in private-sector markets for health care. Many analysts therefore believe that significantly constraining the growth of costs for Medicare and Medicaid is possible only in conjunction with slowing the growth of costs in the health sector as a whole.

A variety of evidence suggests that opportunities exist to constrain costs without incurring adverse consequences for health outcomes—and even perhaps to simultaneously reduce cost growth and improve health. So a central challenge will be to restrain the growth of costs without harming the incentives to provide appropriate care and develop valuable new health treatments. Moving the nation toward that possibility—which would inevitably be an iterative process in which policy steps were tried,

---

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 the production that is financed by foreign investors. Because rising deficits can increase borrowing from foreigners, GNP is a better measure of the economic effects of deficits than is GDP.

evaluated, and perhaps reconsidered—is essential to moving the country toward a sounder long-term fiscal footing.

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. But the second half of the 20th century marked a period of sustained higher peacetime spending by the federal government. For the past 50 years, federal outlays have averaged about 20 percent of GDP. In fiscal year 2007, those outlays totaled $2.7 trillion.

Not only has the amount of such spending grown, but its composition has changed dramatically. Spending for mandatory programs has increased from less than one-third of total federal outlays in the early 1960s to more than one-half in recent years. Most of that growth has been concentrated in Medicare, Medicaid, and Social Security. Together, gross outlays for those programs now account for about 45 percent of federal outlays, compared with 2 percent in 1950 (before the health programs were created) and 25 percent in 1975.

The most significant factor in the future growth of federal spending, as noted earlier, will be spending on Medicare and Medicaid. Rising costs for health care are boosting spending for those programs to a greater degree than can be explained solely by increases in enrollment and general inflation. Since 1975, all factors, including policy changes, have caused annual costs per Medicare enrollee (after adjustments for changes in the age distribution, or profile, of the beneficiary population) to grow an average of 2.4 percentage points faster than per capita GDP—a difference referred to as excess cost growth. Over the same period, excess cost growth in Medicaid was 2.2 percent.

For its long-term projections, CBO assumed that even in the absence of changes in federal law, rates of spending growth in the Medicare and Medicaid programs would probably moderate to some degree. As costs continue to rise, regulatory changes are likely at the federal level. At the state level, both legal and regulatory changes will probably occur; those changes would directly affect Medicaid, which is a joint federal–state program. And actions by employers, households, and insurance firms to slow the rate of health cost growth in the private sector are likely to affect the public insurance programs to some

Box 1-2.

Aging, Excess Cost Growth in Health Spending, and the Federal Budget

The nation's long-term fiscal outlook is affected by the rapid growth of health care costs and an aging population. Health care costs and demographics each affect government spending and revenues independently. The interaction of demographics and health care costs is also important.

One method for estimating the effect of aging on spending growth for Medicare, Medicaid, and Social Security is to ask how much spending would rise if aging were the only factor driving that growth.[1] The first approach examines the increase in spending for Medicare, Medicaid, and Social Security when the population profile is allowed to change over time as the population ages but excess cost growth is constrained to be zero. (Excess cost growth is the percentage by which the growth of health care costs per individual exceeds the growth of per capita gross domestic product, or GDP.) Under that method, aging would account for 27 percent of the total projected increase in Medicare, Medicaid, and Social

Security spending as a share of GDP through 2050 and 20 percent through 2082.[2] The relative effect of aging is projected to decrease over time as the impact of excess cost growth accumulates.

Another way to measure the effect of aging on spending is to ask how much lower spending would be if the aging factor was removed from the projections. Suppose that excess cost growth was consistent with the assumptions underlying the Congressional Budget Office's (CBO's) alternative fiscal scenario but the population profile is constrained not to change over time. Under that method, spending on Medicare, Medicaid, and Social Security as a share of GDP through 2050 would be 39 percent lower than it would be if the population's aging was a factor in the calculations; through 2082, that spending would be 38 percent lower. The effects on spending that can be attributed to aging would be greater under this approach than under the previous method because excess cost growth would amplify those effects.

---

1.   For the purposes of assessing the effects of an aging population, the Congressional Budget Office (CBO) used the assumptions of the alternative fiscal scenario. For the calculations above, CBO used the path for gross domestic product from the alternative fiscal scenario.

2.   However, as noted in CBO's November 2007 report *The Long-Term Outlook for Health Care Spending*, if Medicare and Medicaid were considered on their own, aging would account for only 10 percent of the projected spending increase through 2082.

---

extent.[5] Yet even under an assumption of slowing growth rates, total federal Medicare and Medicaid outlays over the next 75 years would grow from 4 percent of GDP to 19 percent, CBO projects.

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, a shift that will substantially alter the balance between the population's working-age and retirement-age components. The share of people age 65 or older is projected to grow from 12 percent in 2007 to 19 percent in

2030, and the share of people ages 20 to 64 is expected to fall from 60 percent to 56 percent. Aging will contribute to the growth of health care spending, but excess cost growth will remain the dominant factor.

By comparison, aging will be the primary factor in the growth of costs in the Social Security program. CBO projects that the number of workers per Social Security beneficiary will decline significantly over the next three decades, dropping from about 3.2 now to 2.1 in 2030. Unless immigration, fertility, or mortality rates change markedly, that number will continue to slowly fall after 2030. The interaction of growth in the retired population and the current structure of Social Security leads CBO to project that the total cost of Social Security benefits will

---

5.   See Congressional Budget Office, *The Long-Term Outlook for Health Care Spending* (November 2007).

Box 1-2.

Continued

CBO also measured the relative effects of excess cost growth and the coming age shifts in the population by examining how those factors might affect the fiscal gap and projected federal debt in 2082.[3] As under the first method above, the results from a scenario that incorporates no excess cost growth but allows the population's age profile to change was compared with the overall fiscal gap. From that comparison, aging would account for 21 percent of the fiscal gap through 2057 and 20 percent through 2082.

The second method described above can also be used to consider how removing the aging population's effects would influence the fiscal gap. Under that method, aging would account for 31 percent of the gap through 2057 and 32 percent through 2082. As with the measures of spending described earlier, the effects on the gap attributable to aging would be greater under this approach because of the interaction with excess cost growth.

As the federal government's major health care programs, Medicare and Medicaid clearly are directly affected by the growth of health care costs. What is not so obvious is how such growth might affect revenues. First, a rise in health insurance premiums would reduce the portion of compensation that employees receive as wages. The amount of that reduction would then shift from being a taxed amount (part of wages) to being an untaxed form of compensation. Second, income tax deductions related to medical expenses would also rise relative to income as health care costs rose. (Such deductions include both the deduction of health insurance premiums for the self-employed and the itemized deductions for medical expenses.)

Relative to a scenario in which health care costs grew at the same rate as GDP per capita (in other words, a scenario incorporating no excess cost growth), income tax revenues in 2082 under the alternative fiscal scenario would be lower by 1.6 percentage points of GDP, in CBO's estimation. Payroll taxes in that year would be lower by 0.7 percentage points of GDP.[4]

---

3.   For all of the fiscal gap calculations described here, the paths for GDP and revenues match those generated under the alternative fiscal scenario. 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.

---

4.   Reductions in taxable payroll would also reduce Social Security benefits in the future.

---

rise from 4.3 percent of GDP in fiscal year 2007 to 6.1 percent in 2030. (For further discussion of the relationship between the aging of the population and federal outlays, see Box 1-2.)

The different assumptions underlying CBO's extended-baseline and alternative fiscal scenarios lead to different views of the future path of federal spending. In the case of spending for Medicare, for example, assumptions about the sustainable growth rate (SGR) mechanism for updating Medicare's payment rates for physicians would lead to

slightly lower spending under the extended-baseline scenario than under the alternative fiscal scenario. Under the extended-baseline's assumption that current law prevails, the SGR mechanism would reduce physician payment rates by about 4 percent or 5 percent annually for at least the next several years. However, since 2003, the Congress has acted to prevent such reductions. Therefore, under the alternative fiscal scenario, Medicare's physician payment rates would grow with the Medicare economic index (which measures inflation in the inputs used for physicians' services). The difference in spending for

Medicare under the two scenarios is less than 1 percent of GDP in all 75 years of the projection period.

A larger difference between the scenarios involves the assumption about other federal spending—that is, spending for programs other than Social Security, Medicare, and Medicaid but excluding interest on the public debt. Under the extended-baseline scenario, other federal spending in 2018 and later would equal about 7.7 percent of GDP, consistent with the projections for fiscal year 2017 in CBO's March baseline and projected levels of refundable tax credits. Under the alternative fiscal scenario, other spending during the projection period would remain about at its current level of 9.8 percent of GDP.

Spending for Social Security and Medicaid would be identical under both scenarios. In addition, both scenarios incorporate the assumption that the Social Security and Medicare programs will continue to pay benefits as currently scheduled, notwithstanding the projected insolvency of the programs' trust funds.[6]

Under the extended-baseline scenario, primary spending (outlays excluding interest payments) would grow from 18.2 percent of GDP in fiscal year 2007 to 21.8 percent in 2030, 25.7 percent in 2050, and 32.5 percent in 2082. The biggest factor in that growth would be the rise in spending in the Medicare and Medicaid programs.

Primary spending would be higher under the alternative fiscal scenario than under the extended-baseline scenario, largely because of the assumed difference in the amount of other federal spending. Under the alternative scenario, primary spending would reach 24.2 percent of GDP in 2030, 28.3 percent in 2050, and 35.3 percent in 2082.

The Outlook for Revenues

Like federal spending, revenues have been significantly higher in the past half-century than in previous eras, fluctuating between 16.1 percent and 20.9 percent of GDP since 1957. And just as spending priorities have changed during that period, the composition of revenues has

shifted. As a share of total receipts, social insurance payroll taxes (for Social Security, Medicare, unemployment insurance, and retirement programs for federal civilian employees) have increased along with the size of the underlying programs, whereas the shares of corporate income taxes and excise taxes have diminished.

In fiscal year 2007, total federal revenues were 18.8 percent of GDP. Under the extended-baseline scenario, the 2001 and 2003 tax cuts would expire as scheduled and the individual alternative minimum tax would be unchanged. Under that scenario, tax payments for the first 10 years of the 75-year projection period would be identical to CBO's March 2007 baseline; payments would then rise relative to GDP thereafter, increasing by roughly 6.5 percentage points to reach 25 percent of GDP by 2082.

Over a long period, the cumulative effects of inflation and the real growth of income would interact with the tax system under the extended-baseline scenario (and, to a lesser extent, under the alternative fiscal scenario). The result would be higher average tax rates (that is, taxes as a share of income) and a significant change in the way the overall tax burden is distributed among households. Under the extended-baseline scenario, the cumulative effects of inflation would make about half of all households subject to the AMT by 2035. By 2082, more than three-quarters of households would be subject to it.

Under the alternative fiscal scenario, none of the scheduled changes in tax law after 2007 would take effect, and the parameters of the AMT would be indexed to inflation in 2008 and beyond. Under this scenario, tax receipts would rise by roughly 2 percent of GDP over the next 75 years.

Projected Deficits and Debt

For a path of spending and revenues to be sustainable, any resulting debt must eventually grow no faster than the economy. Sustained deficits lead to larger amounts of debt, which in turn result in more spending on interest. Therefore, 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.) At the end of fiscal year 2007,

---

6. The funds' balances 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 June 14, 2007).

that debt was 37 percent of GDP, which is slightly above the average for the past 40 years.

Under the extended-baseline scenario's assumptions (specifically, that the 2001 and 2003 tax changes expire at the end of 2010 and the other-spending category declines substantially over the next 10 years), the federal budget would show a surplus from 2011 through 2024. Historically high levels of revenues and historically low levels of spending on programs other than Medicare, Medicaid, and Social Security would cause federal debt to fall substantially during that period, dropping to 11 percent of GDP in 2025—a smaller share than in any year since World War I. Debt would not return to its current share of GDP until 2045. However, if health costs continued to grow as projected under the scenario, deficits would return, and debt would start to climb rapidly. By the end of the 75-year projection period, debt would reach 239 percent of GDP and be poised to continue on an unsustainable path.

Under the alternative fiscal scenario, deficits would begin to grow immediately. In fiscal year 2007, the deficit was 1.2 percent of GDP; under the alternative fiscal scenario, it would grow to 1.8 percent of GDP in 2010 and 10.1 percent in 2030. The spiraling costs of interest payments would result in clearly unsustainable levels of debt relatively quickly. At the end of World War II, federal debt peaked at 109 percent of GDP; under the alternative fiscal scenario, debt would reach that share in 2031 and continue to rise sharply thereafter. 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, the alternative fiscal scenario does not allow the impact of the AMT to substantially expand). To the extent that such a perspective is valid, the explosive path of federal debt under the alternative fiscal scenario should underscore the need for corrective steps to put the nation on a sustainable fiscal course.

How Would Rising Federal Debt Affect the Economy?

CBO's two long-term budget scenarios would have different effects on the economy. Under the extended-baseline

scenario, outcomes early on would be considerably more auspicious, but under both scenarios, the growth of debt would eventually accelerate as the government attempted to finance its interest payments by issuing more debt—leading to a vicious circle in which it issued ever-larger amounts of debt in order to pay ever-higher interest charges. In the end, the costs of servicing the debt would outstrip the economic resources available for covering those expenditures.

Sustained and rising budget deficits would affect the economy by absorbing funds from the nation's pool of savings and reducing investment in the domestic capital stock and in foreign assets. As capital investment dwindled, the growth of workers' productivity and of real wages would gradually slow and begin to stagnate. As capital became scarce relative to labor, real interest rates would rise. In the near term, foreign investors would probably increase their financing of investment in the United States, which would help soften the impact of rising deficits on productivity in the United States. However, borrowing from abroad would not be without its costs. Over time, foreign investors would claim larger and larger shares of the nation's output, and fewer resources would be available for domestic consumption.

To be sure, budget deficits are not always harmful. When the economy is in a recession, deficits can stimulate demand for goods and services and bring the economy back to full employment. But the deficits that would arise under CBO's long-term scenarios would occur not because the federal government was trying to pull the economy out of a recession but for a more fundamental reason: because the government was spending more and more for health care programs and for interest payments on accumulated debt. Over time, those deficits would crowd out productive capital investment in the United States.

How much would the deficits projected under the two budget scenarios affect the economy? CBO addressed that question by comparing results under the scenarios with those from another set of assumptions under which the deficit in the long run is stabilized at roughly its percentage of GDP in 2007. For that analysis, CBO used a textbook growth model that can assess how persistent

Box 1-3.

Why Is Federal Debt Held by the Public Important?

When the federal government's annual spending exceeds its annual revenues, the government's budget is in deficit. 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 reflects the accumulation of annual budget deficits offset by past budget surpluses.

Growth in such debt is not necessarily a problem. As long as the economy is also expanding just as fast and interest rates are stable, the ratio of debt to gross domestic product (GDP) and the share of GDP that must be devoted to paying interest on the debt will remain stable. Moreover, even if debt grows faster than GDP for a limited time, difficulties do not always arise. But such growth cannot go on forever; at some point, the economy will be unable to provide enough resources for the government to pay the interest due on the debt.

Gross debt is another measure of federal indebtedness that often receives attention, 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 in nature, it has no direct and immediate effect on the economy. Instead, it simply represents credits to the various government accounts that can be redeemed as necessary to authorize payments for benefits or other expenses. Although the Treasury assigns earnings in the form of interest to the funds that hold the securities, such payments have no net effect on the budget.

Debt as a Measure of Fiscal Sustainability

Long-term projections of federal debt held by the public (measured relative to the size of the economy) provide useful yardsticks for assessing the sustainability 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 will produce debt that grows faster than the economy. Projections of debt relative to GDP can thus indicate whether changes in current policies may be necessary at some point in the future.

---

1. In most years, the amount of debt that 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 (which include reductions or increases in the government's cash balances, seigniorage, changes in outstanding checks, changes in accrued interest costs included in the budget but not yet paid, and cash flows reflected in credit financing accounts). However, because changes in other means of financing are small, they play no significant role in the Congressional Budget Office's long-term projections of the deficit.

Box 1-3.

Continued

Federal Debt Held by the Public as a Percentage of Gross Domestic Product
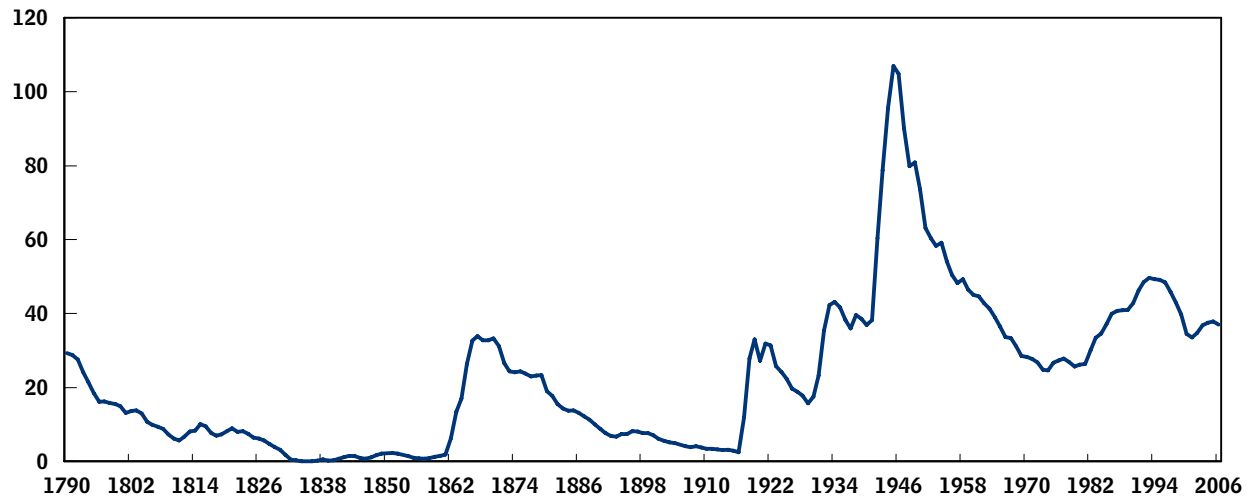
Source: Congressional Budget Office.

Historical and Cross-Country Debt Comparisons

Comparisons with other times and places can provide some perspective on the sustainability of the deficits projected under the Congressional Budget Office's (CBO's) two long-term budget scenarios. The short-falls anticipated in 2082 under either one would be large by any standard. Since the founding of the United States, the annual budget deficit has exceeded 10 percent of GDP in only a few instances, during major wars. Moreover, total 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. As soon as the war was over, federal debt held by the public began to decline as a share of the economy. In fact, until the 1980s, the ratio of debt to GDP had never risen significantly during a period of peace and prosperity.

Other nations have accumulated large amounts of debt, but the amount projected for the United States under CBO's two scenarios would eventually be greater than the amount of debt other industrialized countries have carried in the post-World War II period. For example, during the second half of the 1990s, net public debt averaged about 103 percent of GDP in Italy and 110 percent in Belgium.[2] However, those countries' experiences involved debt that, relative to GDP, fell modestly (in Italy) or dropped significantly (in Belgium), not debt that rose ever faster. Even so, to keep their debt under control, those governments had to make significant changes in fiscal policy simply to cover the interest payments on their debt.

---

2.   Organisation for Economic Co-operation and Development, *Economic Outlook* (Paris: OECD, June 2007).

deficits might affect the economy over the long term. The model incorporates the assumption that deficits affect capital investment in the future as they have in the past.[7]

Alternative Fiscal Scenario

The model's simulations indicate that the rising level of federal debt under this scenario could reduce the capital stock in 2040 by about 25 percent compared with what it would be if the deficit were held to its 2007 share of GDP. The reduction in the capital stock (and the increased indebtedness to foreigners) would in turn reduce real GNP in 2040 by about 13 percent. Losses to the U.S. economy would grow rapidly after 2040. By 2050, rising federal debt would reduce the capital stock by more than 40 percent and real GNP by more than 25 percent. (Beyond 2062, projected deficits become so large and unsustainable that CBO's textbook growth model cannot calculate their effects.)

Such estimates, if anything, understate the risk to economic growth under this scenario. They are based on a model that incorporates the assumption that people do not anticipate future changes in debt; as a result, the model predicts 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 and could occur well before 2063 under this scenario. If foreign investors began to expect a crisis, they might significantly reduce their purchases of U.S. securities, causing the exchange value of the dollar to plunge, interest rates to climb, consumer prices to shoot up, or the economy to contract sharply. Amid the anticipation of declining profits and rising inflation and interest rates, stock prices might fall and consumers sharply reduce their purchases. In such circumstances, the economic problems in this country would probably spill over to the rest of the world and seriously weaken the economies of the United States' trading partners.

Adopting a policy of higher inflation by printing money to finance the deficit would reduce 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 with persistent budget deficits. Without question, an unexpected increase in inflation would, in the short run, enable the government to repay its debt in cheaper

dollars. But financial markets would not be fooled for long, and investors would eventually demand higher interest rates. If the government continued to print money to finance deficits, the policy would eventually lead to hyperinflation (as Germany experienced in the 1920s, Hungary in the 1940s, Argentina in the 1980s, and the Federal Republic of Yugoslavia in the 1990s). Moreover, interest rates could remain high for some time even after inflation was brought back under control. High inflation causes governments to lose credibility in financial markets, and once that credibility has been lost, regaining it can be difficult. In the end, printing money to finance deficits cannot address the fundamental problem that spending exceeds revenues.

Extended-Baseline Scenario

The extended-baseline scenario, by contrast, offers a less threatening budget outlook, at least for the next several decades. Under that scenario, the federal budget would move to a surplus in 2011 and remain in that positive fiscal condition until about 2025. After that, the scenario shows budget deficits emerging again, but the outstanding stock of federal debt would remain at or below its current share of GDP for several decades.

The budget surplus under the extended-baseline scenario would be generated in large part from higher revenues. By CBO's calculations, marginal tax rates on capital (that is, the tax rate on the last dollar of capital income) would increase from 14 percent in 2007 to 16 percent in 2040; marginal tax rates on labor would climb from 28 percent in 2007 to 31 percent in 2040 (see Chapter 5 for more details). Those higher tax rates could affect the economy in various ways, and because their effects are uncertain, CBO's analysis used two different economic models to estimate their impact.[8] The models encompass a wide range of views about how taxes affect the economy.

What would happen to the economy if tax rates rose to the levels projected under the extended-baseline scenario

---

7. For a description of the textbook growth model, see Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 2008* (March 2007), Appendix D.

8. One model is the textbook growth model; the other is a forward-looking life-cycle model that includes wage uncertainty and constraints on borrowing. CBO uses both models in its annual analysis of the President's budget. For more information on the models, see Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 2008*. In using the life-cycle model to analyze the extended-baseline scenario, CBO compared steady-state economies only. The simulations of the life-cycle model thus do not incorporate an analysis of the transitional effects between 2007 and 2040.

in 2040 and remained at those levels thereafter? CBO found that in that case, real GNP could fall 1 percent to 4 percent below what it would be in that year if tax rates were held at their 2007 levels.[9] Although such a reduction in GNP would be noticeable, it is small in comparison with how much the economy could grow over the same period under a sustainable budget policy. If the budget was put on a sustainable path by keeping tax and spending rates close to their current levels, real GNP could grow by 110 percent between 2007 and 2040. Although under the extended-baseline scenario, the higher tax rates in 2040 would reduce that growth, real GNP would still be 101 percent to 108 percent higher than it is today, CBO estimates.

The modest effect that taxes have on the economy in those simulations stems largely from the fact that under the extended-baseline scenario, marginal tax rates would not increase very much between 2007 and 2040; instead, most of the additional revenues generated under the scenario would stem from a broadening of the tax base. If revenues were raised mainly through higher marginal tax rates, the economic effects would be more negative.[10]

The outlook for the economy under the extended-baseline scenario is more problematic in the decades after 2050. Under the scenario's assumptions, by 2080, federal debt would be more than 200 percent of GDP, and according to the textbook growth model, that debt would reduce the capital stock by about 40 percent and real GNP by more than 25 percent. For the same reasons cited earlier, forward-looking financial markets would probably precipitate a crisis before 2080 under this scenario.

---

9. In the simulations, spending would also increase to match the path of spending under the extended-baseline scenario. However, the forward-looking life-cycle model would require further adjustments in policy to finance the budget deficit that is projected to emerge under the extended-baseline scenario in 2040. (Because the textbook growth model is not a forward-looking model, it does not require explicit assumptions about how the deficit in 2040 would be financed.) For the simulations of the life-cycle model, CBO assumed that the deficit in that year would be financed by reducing spending on benefit payment to individuals.

10. See Congressional Budget Office, *Financing Projected Spending in the Long Run* (July 9, 2007).

What Are the Costs of Delaying Action on the Budget?

The choice facing policymakers is not whether to address rising deficits and debts but when and how to address them. Under the extended-baseline scenario, projected revenue increases would be sufficient to avoid serious budgetary and economic troubles until after 2050, but those increases would result in federal revenues that were much higher, as a percentage of GDP, than the nation has been accustomed to. Under the alternative fiscal scenario, such troubles would begin in the next couple of decades, and the longer that policy action on the budget was put off, the more costly and difficult it would be to resolve those expected long-term budgetary imbalances.

Delays in taking action would create three major problems:

■ First, delay would cause the amount of government debt to rise, which would displace private capital (reducing the total resources available in the economy) and increase borrowing from abroad.

■ Second, delay would exacerbate uncertainty. The longer that action was put off, the greater the chance that policy changes would occur suddenly, which could create difficulties for some individuals and households, especially those near or in retirement. Announcing changes in popular entitlement programs or in the tax structure well before they take place gives people time to adjust their plans for saving and retirement. Those adjustments can significantly reduce the impact of changes in policy on people's standard of living.

■ Third, delay would raise the cost of interest on the federal debt, so that lawmakers would have to make ever-larger changes in policy to finance those additional costs. As interest costs rose, policymakers would be less able to finance 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 crisis.

CBO's simulations indicate that under the alternative fiscal scenario, delaying action could substantially increase the size of the policy adjustments needed to put the budget on a sustainable path. The impact of delaying changes in policy would be large even before accounting for

Figure 1-3.

Reductions in Noninterest Spending Needed to Close the Fiscal Gap in Various Years Under CBO's Alternative Fiscal Scenario
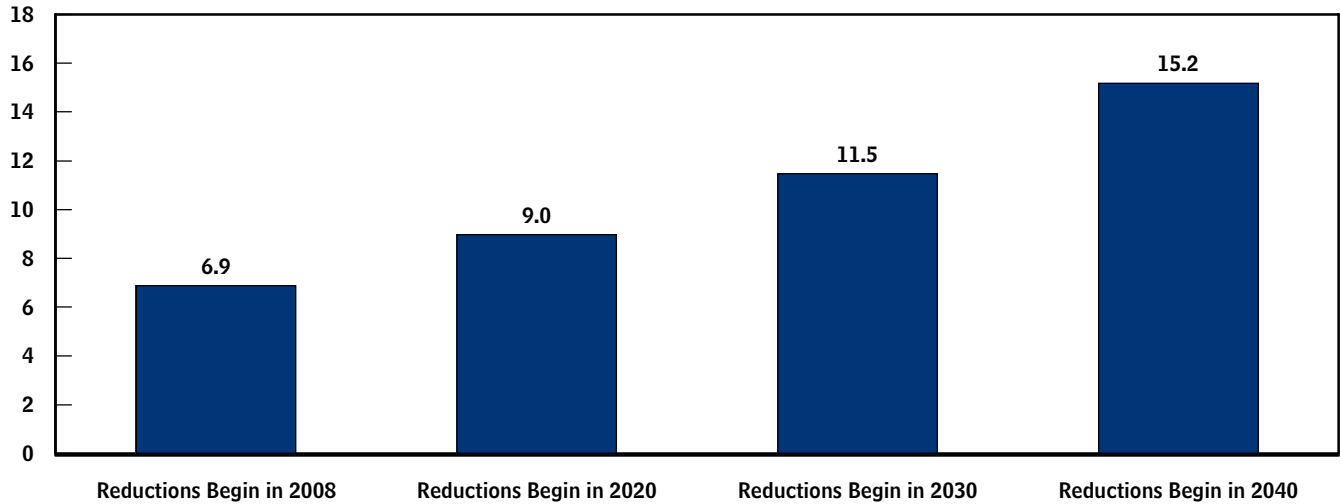
(Percentage of gross domestic product)

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 during the next 10 years, incorporating changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

potential macroeconomic feedback effects. If policy-makers wanted to close the fiscal gap in 2020 by altering spending (and economic feedbacks were not part of the calculation), they would have to reduce noninterest outlays permanently by 9 percent of GDP (see Figure 1-3). If they delayed action on the budget until 2040, to close the fiscal gap in that year, they would have to reduce non-interest outlays permanently by 15 percent of GDP. Waiting until 2040 to close the fiscal gap would allow spending to grow significantly before that year; however, the reductions required in spending in 2040 and in subsequent years would have to be substantial—and much

larger than would have been necessary if action had been taken earlier (see Figure 1-4).

How soon the fiscal gap is closed will affect how much the government would have available to spend on various priorities. If the fiscal gap was closed in 2040, spending (excluding interest) in 2050 could be no more than 13 percent of GDP; if the fiscal gap was closed in 2020, by 2050, the available resources for noninterest spending could be as much as 19 percent of GDP. A similar logic would also apply if changes in tax policy were used to address budgetary imbalances: Delaying action would only increase the size of the tax increases that would eventually be needed to close the fiscal gap.

Figure 1-4.

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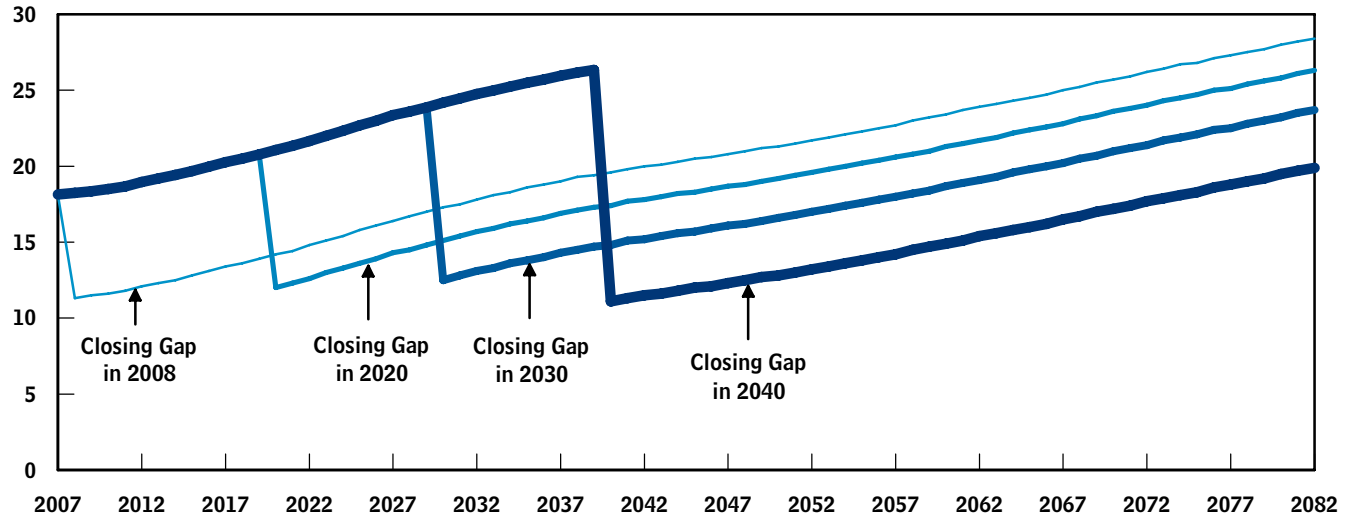
(Percentage of gross domestic product)

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 during the next 10 years, incorporating changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

The Long-Term Outlook for Medicare and Medicaid

Federal spending for the primary government-financed health care programs, Medicare and Medicaid, has been consuming a growing share of the nation's economic output for decades, rising from 1 percent of gross domestic product in 1970 to 4 percent in 2007.[1] As explained in more detail in *The Long-Term Outlook for Health Care Spending,* which the Congressional Budget Office released in November of this year, the programs' future spending growth will be driven primarily by the growth in per capita medical costs, with the aging of the population playing a secondary role. The Medicare population will expand as baby boomers become eligible for the program at age 65 and life expectancies continue to rise. Those demographic trends are also projected to increase Medicaid's costs by boosting demand for long-term care. CBO projects, however, that Medicare and Medicaid spending will increase much more rapidly than enrollment will, because of rapidly increasing costs per beneficiary, which are growing faster than the economy. Substantially curtailing the growth rate of federal health care spending will require addressing the underlying pressures that are driving up health care costs overall.

Overview of the Medicare Program

Medicare provides federal health insurance for nearly 43 million people who are aged (about 85 percent of enrollees) or disabled or who have end-stage renal disease. Everyone who is eligible for Social Security benefits on the basis of age or disability ultimately qualifies for Medicare as well. The elderly become eligible for Medicare at age 65; the disabled become eligible 24 months after their Social Security benefits start.

Part A of Medicare, or Hospital Insurance, covers in-patient services provided by hospitals as well as skilled nursing and hospice care. Part B, or Supplementary Medical Insurance, covers services provided by physicians and other practitioners, hospitals' outpatient departments, and suppliers of medical equipment. Part B also covers a limited number of drugs, most of which must be administered by injection in a physician's office.[2] 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 under Part D.

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. Benefits, the program's administrative costs, and other authorized expenditures are paid from that fund. For Part B, premiums paid by beneficiaries cover about one-quarter of the cost of the program; the rest comes from general revenues.[3] Enrollees' premiums under Part D are set at a level to cover about one-quarter of the cost of the basic prescription drug benefit, but

---

1. Those figures are net of beneficiaries' premiums.

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

3. The standard Part B premiums are established each year to cover 25 percent of projected average expenditures in the Part B program. In 2007, the standard monthly Part B premium is $93.50. Beginning in 2007, higher premiums are required of single beneficiaries whose annual income is more than $80,000 and couples whose income is over $160,000. Those income thresholds will be indexed to inflation in future years. CBO estimates that about 4 percent of beneficiaries are paying the higher premiums in 2007.

Table 2-1.

Medicare Spending for Benefits by Type of Service, 2006

	Billions of Dollars	Percent
Inpatient Hospital Services	120.7	32
Physicians' and Suppliers' Services	86.1	23
Medicare Advantage Plans	55.9	15
Prescription Drug Benefits	32.0	9
Hospital Outpatient Services	20.1	5
Care in Skilled Nursing Facilities	19.5	5
Home Health Services	13.2	4
Hospice Services	8.6	2
Other Services	18.8	5
Total	**374.9**	**100**

Source: Congressional Budget Office.

receipts from premiums cover less than one-quarter of the total cost of the Part D program because some of the outlays for it (such as subsidies for low-income beneficiaries and for employers that maintain drug coverage for their retirees) are not included in the calculation of premiums.

In 2006, Medicare spending totaled $382 billion, of which $375 billion (or 98 percent) covered benefits for enrollees. About 32 percent of the spending on benefits paid for inpatient hospital care, and 23 percent paid for services provided by physicians and other professionals as well as outpatient ancillary services (see Table 2-1).[4] About 15 percent of Medicare expenditures were for the Medicare Advantage program (discussed below), and 9 percent paid for prescription drug benefits under Part D.

Most Medicare beneficiaries receive their Part A and Part B benefits in the traditional fee-for-service program, which pays providers for each covered service (or bundle of services) they provide. Beneficiaries must pay a portion of the costs of their care through deductibles and co-insurance. Unlike many private insurance plans, Medi-

care does not include an annual cap on beneficiaries' cost sharing. Nearly 90 percent of beneficiaries who receive care in the fee-for-service program, however, have supplemental insurance that covers many or all of Medicare's cost-sharing requirements. The most common sources of supplemental coverage are plans for retirees offered by former employers (held by 37 percent of beneficiaries in the fee-for-service program), individually purchased medigap policies (34 percent), and Medicaid (16 percent).[5] The percentage of Medicare beneficiaries who have coverage as retirees, as well as the generosity of that coverage, is expected to decline in the future as employers respond to the financial stresses of rising health care costs.[6]

As of June 2007, 18 percent of Medicare beneficiaries were enrolled in private health plans under the Medicare Advantage program (also known as Part C of Medicare). Such plans submit bids indicating the per capita payment for which they are willing to provide Medicare Part A and Part B benefits, 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, it is paid the amount of the benchmark plus 75 percent of the amount by which the benchmark exceeds its bid. Plans must return that 75 percent to beneficiaries as additional benefits (such as reduced cost sharing on Medicare services) or as a rebate on their Part B or Part D premiums.

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 than those expenditures. CBO calculates that for 2007, benchmarks are 17 percent higher, on average, than projected per capita fee-for-service expenditures nationwide, and that payments to plans will be about 12 percent higher than per capita spending in the fee-for-service portion of the program.

---

4. 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.

5. Medicare Payment Advisory Commission, *A Data Book: Healthcare Spending and the Medicare Program* (June 2007), p. 61.

6. The Henry J. Kaiser Family Foundation and Hewitt Associates, *Retiree Health Benefits Examined: Findings from the Kaiser/Hewitt 2006 Survey on Retiree Health Benefits* (December 2006), available at www.kff.org.

Table 2-2.

Medicaid Enrollees and Federal Benefit Payments, by Category of Enrollee, 2006

| | Enrollees | | Federal Benefit Payments | | Percentage of Benefit Payments for Long-Term Care |
	Number (Millions)	Percent	Billions of Dollars	Percent	
Aged	5.5	9.0	36.7	22.8	70.6
Disabled	9.8	16.1	72.2	44.9	36.0
Children	29.5	48.4	31.1	19.3	7.7
Adults	16.0	26.3	20.8	12.9	1.9
Total	**60.9**	**100.0**	**160.9**	**100.0**	**34.0**

Source: Congressional Budget Office.

Note: Disabled enrollees include some people who are over age 65 or under age 18. Adult enrollees are adults who are not aged or disabled; they are primarily poor parents and pregnant women.

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 was created in 1965 by the same legislation that created Medicare, replacing an earlier program of federal grants to states to provide medical care to people who have low income. In 2006, federal spending for the program was $181 billion, of which $161 billion covered benefits for enrollees. (In addition to benefits, Medicaid's spending includes payments to hospitals that treat a "disproportionate share" of low-income patients as well as costs for the Vaccines for Children program and administrative costs.) The federal government's share of Medicaid's spending for benefits varies among the states and currently averages 57 percent.

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 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 elderly and disabled individuals who qualify for the Supplemental Security Income program. In general, a Medicaid enrollee 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 the flexibility to administer the Medicaid program and determine its scope. Partly as a result, the program's rules are complex, and it is difficult to generalize about the types of enrollees who are covered, the benefits that are offered, and the cost sharing that is required. States may choose to make additional groups of people eligible (such as individuals who have high medical expenses and who 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, states often seek and receive federal waivers that allow them to provide benefits and cover groups that would otherwise be excluded under Medicaid. By one estimate, total spending on optional populations and benefits accounted for about 60 percent of the program's expenditures in 2001.[7]

On the basis of data from the Department of Health and Human Services, CBO estimates that about half of Medicaid's 61 million enrollees in 2006 were poor children and that another one-quarter were either the parents of those children or poor pregnant women.[8] Per capita costs

7. 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.

8. The enrollment figure of 61 million includes all people who were enrolled in Medicaid at any time during 2006. About 46 million people were enrolled in the program in June of that year.

Figure 2-1.

National Spending on Health Care as a Percentage of Gross Domestic Product

(Percent)
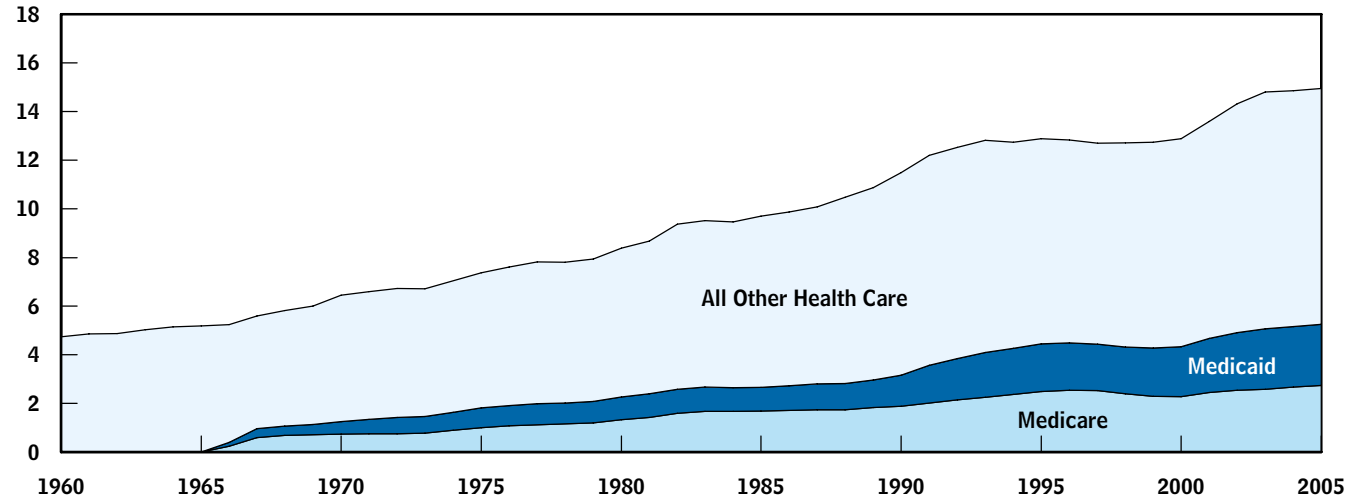
Source: Congressional Budget Office based on data on spending on health services and supplies, as defined in the national health expenditure accounts, maintained by the Centers for Medicare and Medicaid Services.

Note: Amounts for Medicare are gross federal spending on the program. Amounts for Medicaid include spending by the federal government and the states.

for those groups are relatively low, though, whereas expenses are higher for elderly and disabled beneficiaries, many of whom require 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 (see Table 2-2). Overall, one-third of Medicaid's spending in 2006 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 45 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. 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 the states contract with organizations that assume the responsibility and financial risk for providing a subset of Medicaid benefits, such as dental services or mental health care.

Growth in the Programs' Costs

Total spending on health care in the United States, including both private and public spending, increased from 4.7 percent of GDP in 1960 to 14.9 percent in 2005, the most recent year for which such data are available. Federal costs for Medicare and Medicaid have also grown rapidly (see Figure 2-1).

Most analysts agree that the most important factor contributing to the growth in health care spending in recent decades has been the emergence, adoption, and widespread diffusion of new medical technologies and services. Major advances in medical science allow providers to diagnose and treat illnesses in ways that were previously 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 innovation can sometimes reduce spending, in medicine such advances and the resulting changes in clinical practice have generally increased it.

Other factors that have contributed to the growth of health care spending include increases in personal income

and the growth of insurance coverage. Demand for medical care tends to rise as real (inflation-adjusted) family income increases. Moreover, the growth of insurance coverage in recent decades, as evidenced by the substantial reduction in the percentage of health care spending that is paid out of pocket, has also increased the demand for medical care, because coverage reduces the cost of care for consumers. However, according to the best available evidence, increasing income and insurance 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, health care spending per capita rises. However, over the past three decades, the effect of aging on health care spending has been relatively modest.

Medicare
Between 1975 and 2005, federal Medicare spending rose from 1.0 percent to 2.7 percent of GDP. Spending has grown in part because of increased enrollment in the program (from 25 million in 1975 to 43 million this year). However, the main factor driving Medicare's cost growth has been that costs per beneficiary—once the effects of demographic changes are removed—grew 2.4 percentage points faster than per capita GDP between 1975 and 2005. That "excess cost growth" in Medicare has been due primarily to the same factors that have led to increases in health care spending in the nation as a whole—most notably, greater use of new medical technologies (in part because neither doctors nor patients have strong incentives to control costs). Legislative and administrative changes have also contributed to the growth in Medicare's costs per enrollee.

Medicaid
Between 1975 and 2005, federal spending for Medicaid rose from 0.3 percent to 1.4 percent of GDP. Increased enrollment in the program and growth in the costs per beneficiary were the principal factors in that rise. Excess cost growth in Medicaid averaged 2.2 percentage points over the 1975–2004 period.[9]

Projections of the Programs' Costs
In the absence of an unprecedented change in long-term trends, spending on health care will grow substantially

over the coming decades. CBO's long-term projections (covering 2008 to 2082) show Medicare and Medicaid spending under the two budget scenarios discussed in Chapter 1:

■ The extended-baseline scenario, which incorporates the assumption of no change in current law. 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 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 (using the Medicare economic index, which measures inflation in the inputs used for physicians' services).

Under both scenarios, Medicare benefits would continue to be paid in full regardless of the financial status of the Hospital Insurance Trust Fund.[10] Projected spending for Medicare under the alternative fiscal scenario is slightly higher than under the extended-baseline scenario, but the difference is small over the 75-year projection period. Projected spending for Medicaid is the same under both scenarios.

CBO's projections provide a useful measure of the scope of the potential problem posed by rising Medicare and Medicaid costs—despite the fact that in reality, federal law will change in the future, ensuring that the basis for the projections will turn out not to be correct. The projections are also subject to the inherent uncertainty

---

9. Detailed data on Medicaid enrollment are available only through 2004, and so all calculations for historical excess cost growth in the Medicaid program are for 1975 through 2004. For a more detailed discussion of that growth, see Congressional Budget Office, *The Long-Term Outlook for Health Care Spending* (November 2007).

10. 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.

Figure 2-2.

Projected National Spending on Health Care as a Percentage of Gross Domestic Product Under CBO's Extended-Baseline Scenario

(Percent)
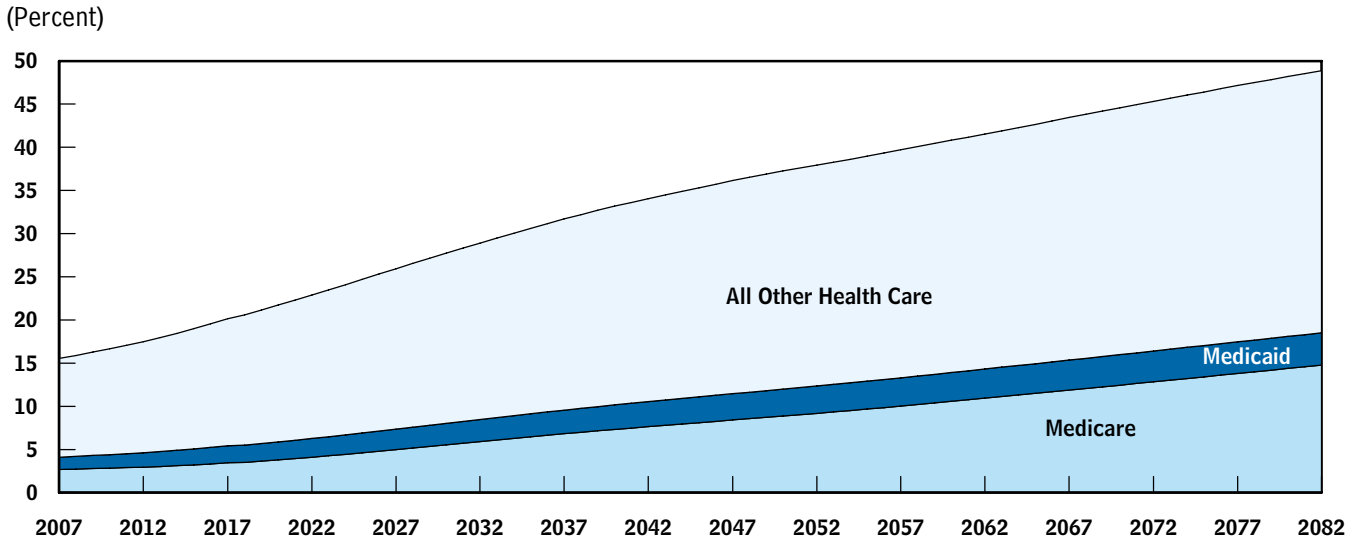
Source: Congressional Budget Office.

Notes: Amounts for Medicare are net of beneficiaries' premiums. Amounts for Medicaid are federal spending only.

The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the 75-year projection period, to 2082.

surrounding any long-term projections, especially those that apply to health care.[11]

CBO's projections for Medicare and Medicaid are based on the following set of assumptions:

■ From 2008 through 2017, projections for the two programs under the extended-baseline scenario match those in CBO's March 2007 budget outlook;[12] projections under the alternative fiscal scenario are slightly higher;

■ In 2018, spending per enrollee in excess of growth in per capita GDP (excess cost growth) for Medicare and Medicaid equals the historical averages;

■ Total real per capita consumption of goods and services besides health care does not decline during the 75-year projection period; and

■ Preventing such nonhealth consumption from declining requires annual reductions in excess cost growth for Medicare and Medicaid.[13]

Under those assumptions, spending on Medicare and Medicaid is projected to grow as a share of GDP and of total spending on health care (see Figure 2-2). Net federal spending on those programs now accounts for about 4 percent of GDP, or 26 percent of total health care spending. Under CBO's extended-baseline scenario, those figures would grow to 9 percent of GDP by 2035 (30 percent of total spending on health care), and to

---

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

12. See Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 2008* (March 2007).

13. Under CBO's assumptions, the excess cost growth rate for non-Medicare, non-Medicaid spending would drop to 0.1 percentage point by 2082. For Medicare, excess cost growth would decline to 1.1 percentage points that year, and for Medicaid, to 0.2 percentage points. Average annual rates for excess cost growth between 2018 and 2082 would be 0.6 percentage points for non-Medicare, non-Medicaid health care spending, 1.7 percentage points for Medicare, and 0.9 percentage points for Medicaid. For a more detailed discussion of historical rates of excess cost growth, see Congressional Budget Office, *The Long-Term Outlook for Health Care Spending*.

Figure 2-3.

Projected Spending on Health Care as a Percentage of Gross Domestic Product Under CBO's Long-Term Budget Scenarios

(Percent)
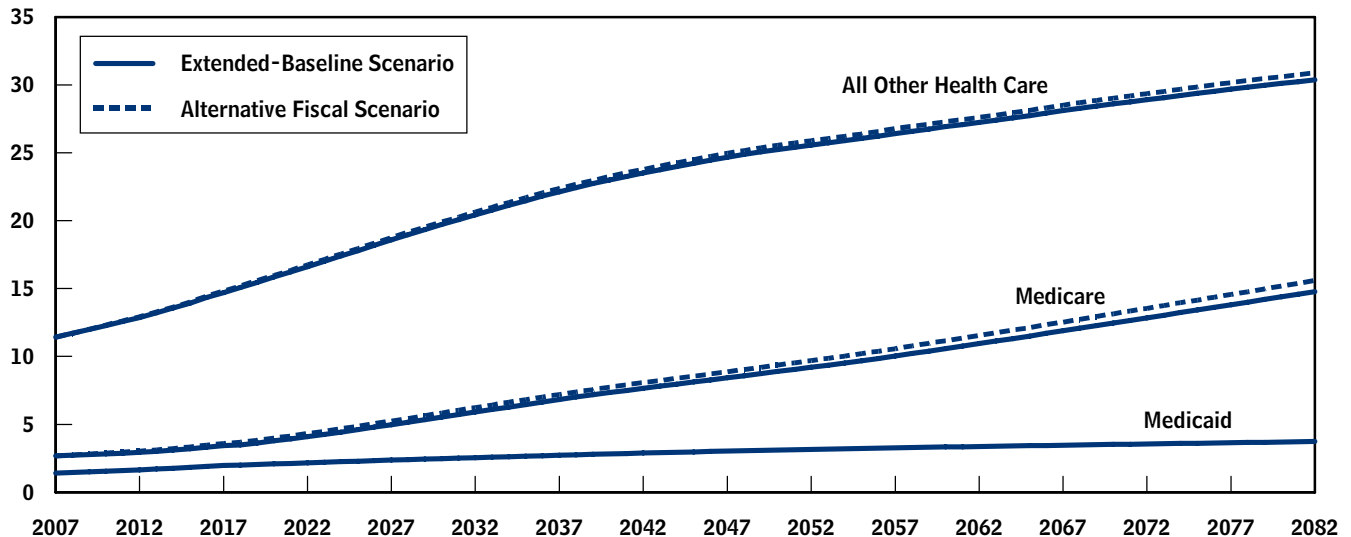
Source: Congressional Budget Office.

Note: The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budget projections from 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the 75-year projection period, to 2082. Currently, a mechanism in federal law would reduce Medicare's fees for physicians' services. The alternative fiscal scenario deviates from CBO's baseline projections even during the next 10 years, incorporating changes in policy that are widely expected to occur and that policymakers have regularly made in the past. In particular, for its alternative scenario, CBO assumed that Medicare's fees for physicians' services would be updated to account for inflation in the services' inputs.

19 percent of GDP by 2082 (38 percent of total spending). Projected outlays would be similar under the alternative fiscal scenario because the scenario's assumption that Medicare's physician fees are updated to account for inflation would have only a minor effect over the long term (see Figure 2-3).

Analysts working 75 years ago, in 1932, would have been extremely unlikely to correctly project the current share of the economy devoted to health care, and the projections in this report will undoubtedly prove to be inaccurate in one direction or another. It will be difficult to judge their accuracy 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 on health care could be much lower or much higher. In the past, technological developments have generally resulted in expanded treatment and higher total spending. Future

innovations could accelerate that trend. Alternatively, if future research resulted in the development of inexpensive curative therapies, growth could slow.

Projections Under Alternative Assumptions
For comparison purposes, CBO projected costs under other assumptions about excess cost growth. A projection that assumes such growth is held constant at zero, although implausible, is useful because it isolates the effect of the aging of the population (see Figure 2-4). If excess cost growth was held at zero, projected net federal outlays for the two programs would increase from 4 percent of GDP in 2007 to 6 percent of GDP by 2040 and then rise gradually to 7 percent by 2082. Under a scenario in which excess cost growth was 2.5 percentage points—which could be roughly interpreted as what would occur with no slowing of growth rates whatsoever—net federal spending on the two programs would grow to 13 percent of GDP in 2040 and 38 percent of GDP by 2082.

Figure 2-4.

Federal Spending for Medicare and Medicaid as a Percentage of Gross Domestic Product Under Different Assumptions About Excess Cost Growth
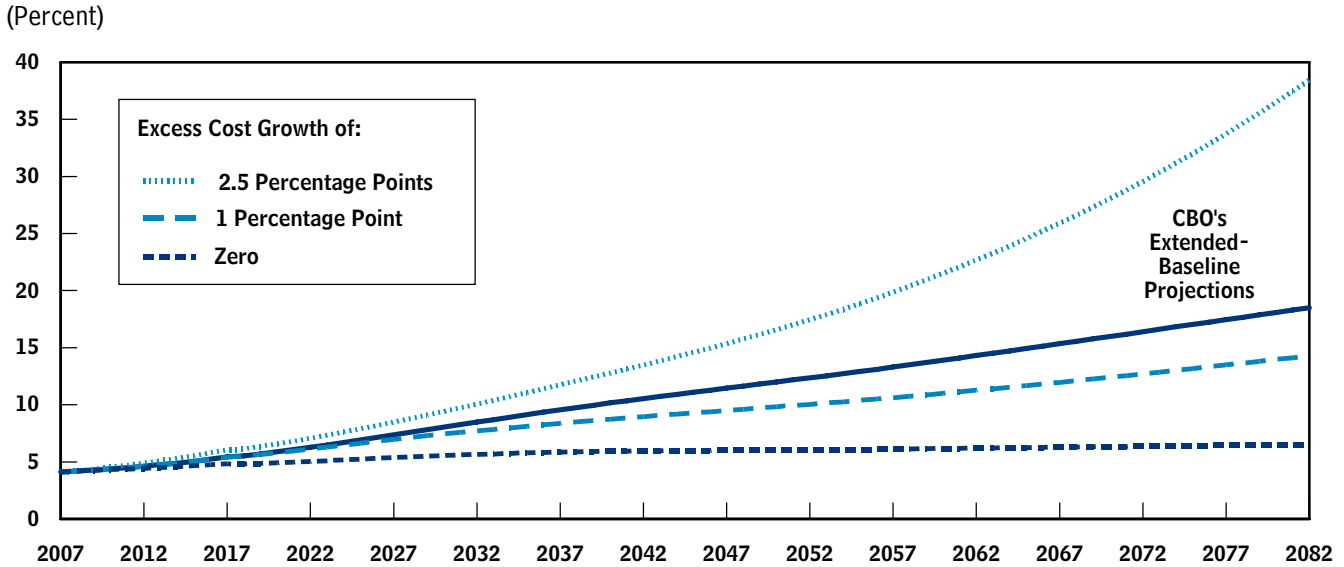
(Percent)

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 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the period, to 2082.

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.[14] A commonly used measure is the actuarial balance, which is defined as the difference between the discounted present value of projected revenues and outlays over the period; that difference is shown as a percentage of the discounted present value of taxable payroll over that same period.[15] (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 rev-

enues, 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 5.4 percentage points, which is the difference between projected income equal to 3.5 percent of taxable payroll and projected costs totaling 8.9 percent of taxable payroll (see Table 2-3). 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 8.3 percent. In the nearer term, required income-rate increases would be smaller: for a 25-year projection period, 0.7 percentage points; for a 50-year period, 3.5 percentage points.

---

14. 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.

15. Another commonly used metric is the trust fund exhaustion date. CBO projects that the HI trust fund will become exhausted in 2021. For its long-term projections, however, CBO assumed that even after the trust fund's exhaustion, benefits would be paid as scheduled.

Table 2-3.

Measures of Projected Income, Costs, and Balances for the Hospital Insurance Trust Fund

Projection Period	Income Rate	Cost Rate	Actuarial Balance
25 Years (2008 to 2032)	4.3	4.9	-0.7
50 Years (2008 to 2057)	3.5	7.0	-3.5
75 Years (2008 to 2082)	3.5	8.9	-5.4

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 income 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' intermediate projections for the HI trust fund.[16] 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 3.6 percentage points would be necessary, a rate almost 2 percentage points lower than CBO's projection. The difference arises largely because the trustees assume lower 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 (2007 to 2081) actuarial balance that is consistent with one generated by using an excess cost growth assumption for each year of 1 percentage point.

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.) A result of that assumption of no change in current law is that Medicare and Medicaid grow more rapidly than the rest of the health care system, an unlikely outcome because federal law will change in the future. In other words, it is certain to change to prevent the unsustainable outcomes that the scenarios in this report anticipate. So what types of federal policy options would help to reduce future spending on Medicare and Medicaid?

One type of change would involve reducing payment rates in the two programs. For example, some analysts have proposed reducing payments to Medicare Advantage plans. As noted earlier, those private insurance plans, according to CBO's estimates, are paid roughly 12 percent more than the cost of enrolling their beneficiaries in the traditional fee-for-service component of Medicare. Other proposals have involved reductions in reimbursement rates for specific types of services or providers.

A more fundamental set of federal policy changes might help reduce not only federal spending but also health care spending overall. Indeed, given the interactions between federal programs and the rest of the health system, many analysts believe that significantly constraining the growth of costs for Medicare and Medicaid over long periods, while maintaining broad access to health care providers under those programs, can occur only in conjunction with slowing the growth of costs in the health care sector as a whole.

Two potentially complementary approaches to reducing spending on Medicare, Medicaid, and health care generally—rather than simply reallocating spending among different sectors of the economy—involve generating more information about the relative effectiveness of med-

16. See Department of Health and Human Services, Centers for Medicare and Medicaid Services, Office of the Actuary, *2007 Annual Report of the Board of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds* (April 23, 2007), p. 161. 17. The trustees' analysis covered 2007 to 2081; CBO's covered 2008 to 2082.

ical treatments and changing the incentives for providers and consumers in the supply and demand of health care. The current financial incentives facing both providers and patients tend to encourage, or at least facilitate, the adoption of expensive treatments and procedures, even if the evidence about their effectiveness relative to other therapies is limited. For doctors and hospitals, those incentives stem from fee-for-service reimbursement. Such payments can encourage health care providers to deliver a given service in an efficient manner but also provide an incentive to supply additional services—as long as the payments exceed the costs. For their part, insured individuals generally face only a portion of the costs of their care and thus have only limited financial incentives to seek lower-cost treatments. Private health insurers have incentives to limit the use of ineffective care but are also constrained by a lack of information about what treatments work best for which patients.

Many analysts believe that expanded research on "comparative effectiveness" offers a promising mechanism to address some of those concerns. Analysis of comparative effectiveness involves comparison of the impact of different options that are available for treating a given medical condition for a particular set of patients. Such studies may compare similar treatments, such as competing drugs, or they may analyze very different approaches, such as surgery in comparison with drug therapy. The analysis may focus only on the relative medical benefits and risks of each option, or it may weigh both the costs and the benefits of those options. In some cases, a given treatment may be found more effective for all types of patients, but more commonly, a key issue is determining which specific types would benefit most from it.

To affect medical treatment and reduce health care spending, the results of comparative effectiveness analyses would ultimately have to change the behavior of doctors and patients—that is, persuade them to use fewer services or less intensive and less expensive services than are currently projected. For Medicare to incorporate such analysis in its policies would require changes to current law. The program has not taken costs into account in determining which services are covered and has made only limited use of data on comparative effectiveness in its payment policies. But if statutory changes permitted

doing so, the program could use information about comparative effectiveness to promote higher-value care.

For example, Medicare could tie its payments to providers to the cost of the most effective or most efficient treatment. If that payment was less than the cost of providing a more expensive service, then doctors and hospitals would probably elect not to provide it—so the change in Medicare's payment policy would have the same practical effect as a coverage decision. Alternatively, enrollees could be required to pay for the additional costs of less effective procedures (although the impact on incentives for patients and their use of care would depend on whether and to what extent they had supplemental insurance coverage that paid some or all of Medicare's cost-sharing requirements).

More modest steps that Medicare could be authorized to take would include smaller-scale financial inducements to doctors and patients to encourage the use of cost-effective care. Doctors and hospitals could receive modest bonuses for practicing effective care or modest cuts in their payments for using less effective treatments. Likewise, enrollees could be required to pay a portion of the additional costs of less efficient procedures (rather than the full difference in costs). Or Medicare could provide information to doctors and their patients about doctors' use of various treatments, which would create some pressure for them to use more-efficient approaches. Adopting more modest measures to incorporate the findings of comparative effectiveness research, however, would probably yield smaller savings for the program.

Even in the absence of more information about comparative effectiveness, changes in incentives could help control health care costs—but such measures would be more likely to maximize the health gains obtained for a given level of spending if they were combined with improved information. On the provider side, greater bundling of payments to cover all of the services associated with a treatment, disease, or patient could reduce or eliminate incentives to provide additional services that might be of small value. Such approaches, however, can raise concerns about the financial risk that providers face and about incentives for them to provide too little care. On the consumer side, a landmark health insurance experiment by

RAND showed that higher cost sharing reduced spending—particularly when compared with a plan offering free care—with little or no adverse effects on health.[17]

The broad options of generating more information and of changing incentives do not represent an exhaustive list of proposals intended to reduce costs in Medicare and Medicaid. In addition, some analysts have advocated significant expansions of disease management and care coordination as mechanisms for reducing costs—proposals that reflect the increasing prevalence of many chronic conditions, the large share of health care spending attributable to those conditions, and the lack of systems to

coordinate care in many public and private health insurance plans. For example, 25 percent of Medicare beneficiaries accounted for 85 percent of the program's costs in 2001; more than three-quarters of those expensive beneficiaries had one or more of seven prominent chronic conditions (including coronary artery disease, diabetes, and congestive heart failure). However, the evidence to date—including the findings of several demonstration projects conducted under Medicare's auspices—suggests that disease management and care coordination may raise the quality of the health care provided but do not significantly reduce costs among a broad array of patients. As more evidence on the approaches is developed, identifying specific ways to reduce costs, especially for targeted subsets of beneficiaries, may become possible; for now, the possibility and scope of any savings remain unclear.

---

17. Joseph P. Newhouse and the Insurance Experiment Group, *Free for All? Lessons from the RAND Health Experiment* (Cambridge, Mass.: Harvard University Press, 1993).

The Long-Term Outlook for Social Security

Social Security is the federal government's largest single 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 50 million people now receive Social Security benefits.

During the program's first four decades, spending for Social Security benefits steadily increased relative to the size of the economy, reaching about 4 percent of gross domestic product in the mid-1970s (see Figure 3-1). That spending was driven largely by repeated expansions of the program. Since then, spending for Social Security benefits has mostly fluctuated between 4.1 percent and 4.5 percent of GDP. In fiscal year 2007, it accounted for 4.3 percent of GDP.

How Social Security Operates

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. Workers whose employment has been limited because of a physical or mental disability can become eligible for DI benefits at an earlier age and often 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, they receive payments based on their average earnings over their working lifetime; those payments are subsequently adjusted to reflect annual changes in the cost of living. The formula used to translate average earnings into benefits is progressive: In other words, it replaces a larger share of preretirement earnings for people with lower average earnings than it does for people

with higher earnings. Both the earnings history and the specific dollar amounts included in the formula are indexed to changes in average annual earnings for the labor force as a whole.[1] Because average national earnings generally grow faster than the rate of inflation, that indexation causes initial benefits for future recipients to grow in real (inflation-adjusted) terms.

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 be approximately equally valuable regardless of when he or she begins collecting them.

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 rises by two months per birth year for people born from 1938 through 1943 and again by two months per year for people born from 1955 through 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 2008 having had average earnings throughout their career will be eligible for an annual benefit of about $15,000. That amount will replace nearly 40 percent of their preretirement earnings. In later decades, the replacement rate will be less for workers with average earnings who retire at age 65, mainly because of the scheduled increase in the normal retirement age.

---

1. 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 as a Percentage of Gross Domestic Product

(Percent)
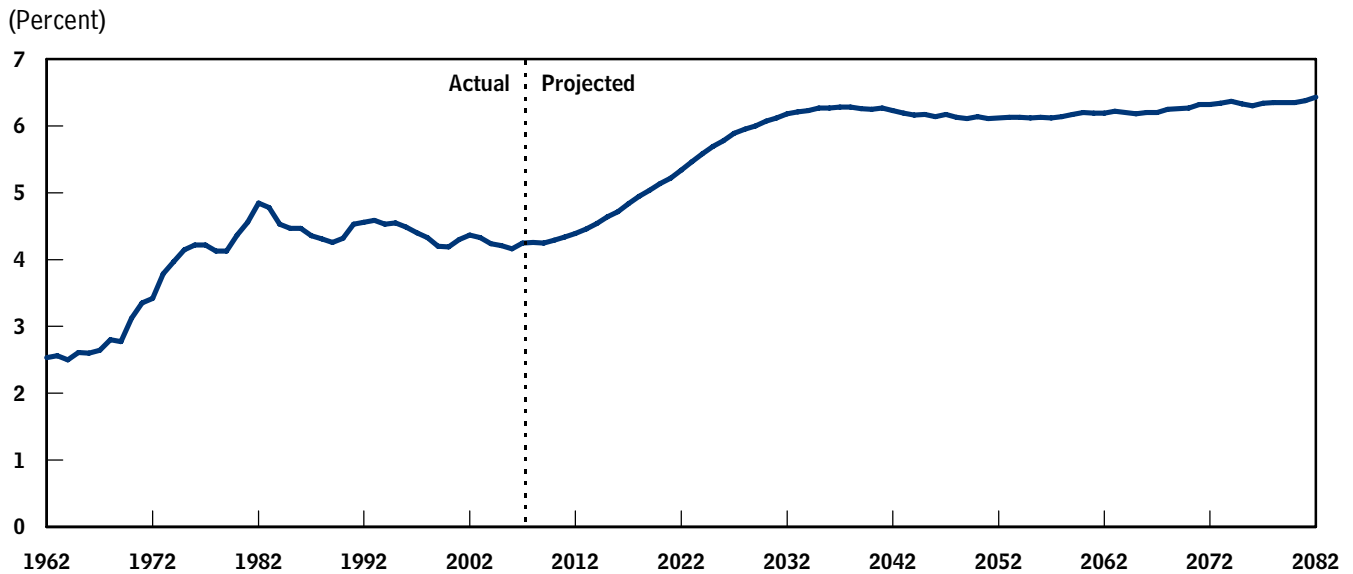
Source: Congressional Budget Office.

Nevertheless, because initial benefits are indexed to average wages, which grow over time, the real value of those benefits will continue to rise.

Although Social Security is often characterized as a retirement program, it also provides other benefits. Indeed, only about 63 percent of its beneficiaries receive their payments as retired workers (see Figure 3-2). As of September 2007, 14 percent of beneficiaries were disabled workers, 13 percent were survivors of deceased workers, and the remaining 10 percent were spouses or children of retired or disabled workers.

Benefits are funded primarily through payroll taxes imposed on workers and their employers, with a small portion of revenues derived from income taxes on the benefits of higher-income beneficiaries. Only earnings up to a maximum annual amount 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. The revenues 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.

The Outlook for Social Security Spending

The cost of the Social Security program will rise noticeably in coming decades—a change that has long been foreseen.[2] Average benefits typically grow when the economy does (because the earnings on which those benefits are based increase). However, in the future, the total amount of scheduled benefits will grow faster than the economy because of changes in the nation's demographic structure.[3] 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

2.   For details on the Congressional Budget Office's methodology for projecting Social Security's revenues and outlays, see *Updated Long-Term Projections for Social Security* (June 2006). 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.*

3.   As discussed in Chapter 5, the Congressional Budget Office 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.

Figure 3-2.

Distribution of Social Security Beneficiaries, by Type of Benefits Received, September 2007

(Percent)

Spouses and Children of Disabled Workers (4%)

Disabled Workers (14%)

Survivors of Deceased Workers (13%)

Spouses and Children of Retired Workers (6%)

Retired Workers (63%)
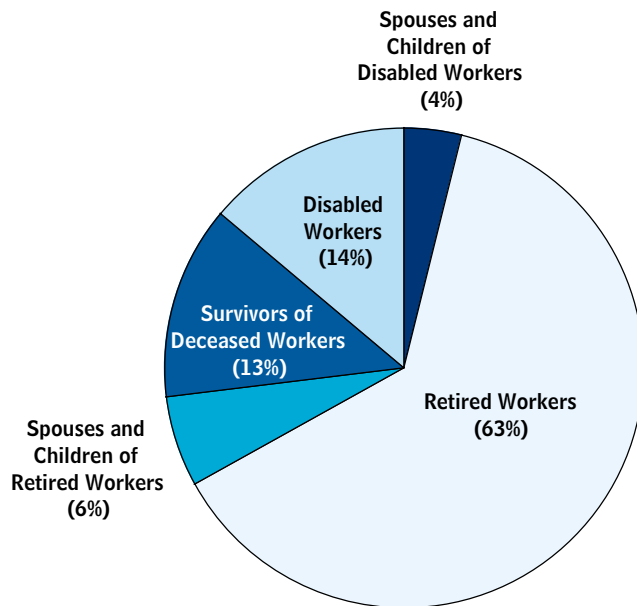
Source: Congressional Budget Office based on Social Security Administration, "Monthly Statistical Snapshot, September 2007," Table 2.

will draw Social Security benefits.[4] Moreover, whereas the number of people ages 20 to 64 is projected to grow by 11 percent in the next 30 years, the number of people age 65 or older is projected to double. As a result, in three decades, 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). By 2030, the Congressional Budget Office anticipates, about 86 million people will be collecting Social Security benefits, compared with about 50 million today. The average benefit will have grown by about 29 percent in real terms. Consequently, CBO estimates that unless changes are made to Social Security, spending for the program will rise from 4.3 per-

cent of GDP in fiscal year 2007 to 6.1 percent of GDP by 2030. With further increases in life spans, spending for Social Security will gradually rise thereafter, reaching 6.4 percent of GDP in 2082.

Revenues dedicated to the Social Security program will continue to exceed the program's scheduled outlays for another decade, CBO estimates. In the long run, the dedicated revenues will be insufficient to pay scheduled benefits. (For the purposes of these projections, however, CBO has assumed that all scheduled benefits will be paid.) As discussed in the preceding chapter, 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 minus the present value of outlays over a specified period). CBO estimates that over the 75-year projection period, dedicated revenues will fall short of scheduled benefits by about 1.8 percent of taxable payroll (see Table 3-1).[5] In other words, to bring the program into actuarial balance over the next 75 years, payroll taxes could be immediately increased by 1.8 percent of taxable payroll and kept at that higher rate, or scheduled benefits could be reduced by an equivalent amount. That estimate is similar to the most recent estimate of the long-range actuarial deficit reported by the Social Security trustees.[6]

---

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

5.   Another commonly used metric is the trust fund exhaustion date. The Social Security Administration has legal authority to pay benefits only from balances in the Social Security trust funds, which CBO projects will be exhausted in 2043. Once that occurred, the Social Security Administration would no longer have the legal authority to pay full benefits. In the years following trust fund exhaustion, payable benefits would be substantially lower than scheduled benefits because annual outlays would be limited to annual revenues. In its report titled *Updated Long-Term Projections for Social Security*, CBO projected benefits under two scenarios: a "benefits payable" scenario, in which outlays are limited by the availability of trust fund balances, and a "benefits scheduled" scenario, in which they are not limited. This report uses the latter scenario.

6.   In their 2007 annual report, the trustees estimated that, on the basis of their intermediate assumptions, the program's actuarial balance was -1.95 percent of taxable payroll for the 2007–2081 period (which ends one year earlier than the 2008–2082 period considered here). See Social Security Administration, *The 2007 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds* (April 23, 2007), pp. 54–58.

Figure 3-3.

The Population Age 65 or Older as a Percentage of the Population Ages 20 to 64
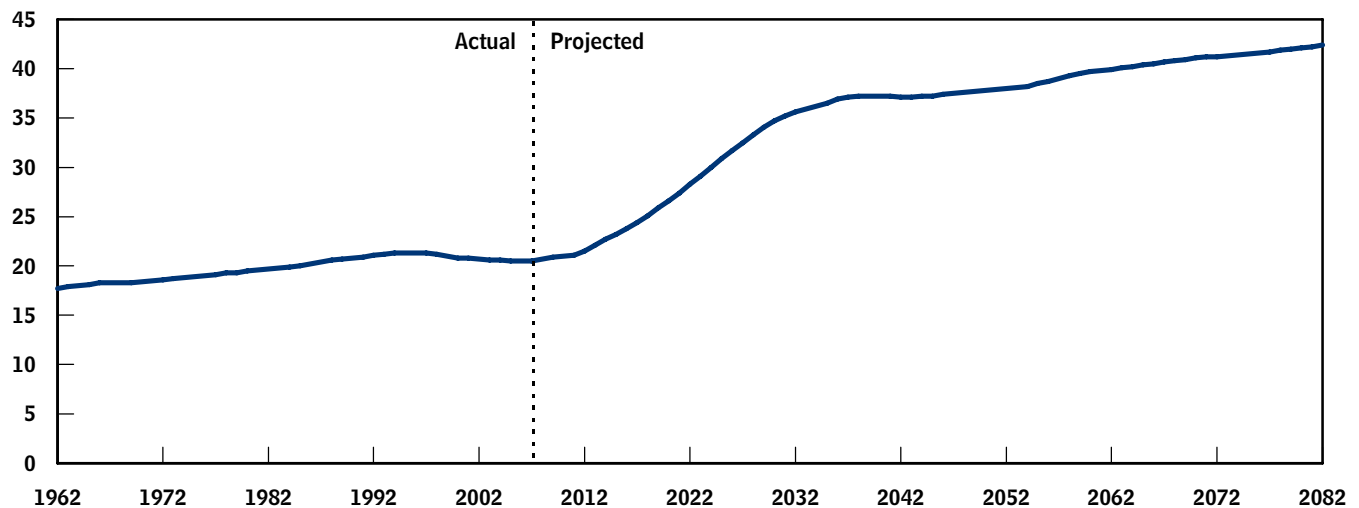
Source: Congressional Budget Office.

Slowing the Growth of Social Security Spending

Three broad approaches for constraining the rise in Social Security benefits have received considerable attention. First, policymakers could reduce the size of the initial payments that new Social Security beneficiaries are scheduled to receive. Second, they could increase further the age at which workers become eligible for full retirement benefits (which would reduce the benefit received at any given age of initial claiming). Third, policymakers could reduce the annual cost-of-living adjustment that beneficiaries receive once they become eligible for benefits. Several CBO papers have analyzed those approaches as well as various plans for restructuring the Social Security program.[7] 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 revenues 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 often consider the size of their expected Social Security benefits when they decide how much to save and how long to work. Because Social Security benefits are a major source of income for many people, it would be important to enact any benefit reductions well in advance so people would have enough time to respond by adjusting their plans for saving and retirement.

---

7. See, for example, Congressional Budget Office, *Budget Options* (February 2007), pp. 211–225. 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 at the agency's Web site, in the special collection on Social Security, which is available at www.cbo.gov/publications.

Table 3-1.

Measures of Projected Income, Costs, and Balances for Social Security

(Percentage of taxable payroll)

Projection Period	Income Rate	Cost Rate	Actuarial Balance
25 Years (2008 to 2032)	14.9	14.1	0.8
50 Years (2008 to 2057)	14.3	15.3	-1.0
75 Years (2008 to 2082)	14.1	15.9	-1.8

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 income minus the present value of costs divided by the present value of taxable payroll over that period.

The Long-Term Outlook for Other Federal Spending

In 2007, a little less than one-half of the federal government's spending went toward programs and purposes other than Medicare, Medicaid, and Social Security and net interest on the public debt. The category of other federal spending includes both discretionary programs (which are funded through the annual appropriation process) and other mandatory programs (which are usually funded according to the underlying statutes that establish eligibility and payment standards). The other mandatory spending category also incorporates certain receipts that the budget records as negative outlays.

The Congressional Budget Office's long-term budget scenarios reflect two of many possible future paths for other federal spending:

■ For 2008 to 2017 under the extended-baseline scenario, CBO used the projections for other federal spending from its 10-year baseline, which assume that mandatory programs operate as they do under current law and funding for discretionary spending grows at the rate of inflation. For 2018, other federal spending under the scenario would be the same share of gross domestic product (7.7 percent) that it is projected to constitute in 2017 under the baseline. For years after 2018, such spending would decline slightly, to 7.6 percent of GDP.

■ Under the alternative fiscal scenario, other federal spending would gradually decline from its level in fiscal year 2007—9.9 percent of GDP—to 9.6 percent of GDP in 2082.[1]

---

1. 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 is instead modeled with the revenue paths described in Chapter 5.

Discretionary Spending

A distinct pattern in the federal budget since 1962 is the diminishing share of spending provided through annual appropriations (see Figure 4-1). As a share of the budget, such spending has fallen from 68 percent in 1962 to 38 percent in fiscal year 2007. Relative to the size of the economy, discretionary spending has declined from 12.6 percent of GDP in 1962 to 7.6 percent in 2007.

As a share of GDP, total discretionary spending peaked at more than 13 percent in 1967, driven by outlays for defense that reached 9.3 percent of GDP at the height of the Vietnam War. Similarly, the trough in discretionary spending that occurred in 1999 and 2000 reflected the bottoming-out of defense expenditures, at 3.0 percent of GDP, in those years. In contrast, nondefense discretionary spending as a share of GDP varied over a narrower range—from 5.2 percent (in 1980) to 3.3 percent (in 1998).

Defense Discretionary Spending

In fiscal year 2007, defense spending totaled 4.0 percent of GDP; under CBO's baseline assumptions, it would constitute about 3.0 percent of GDP in 2017. Since World War II, defense spending has fluctuated to a significant degree. For example, it increased during the Korean War (averaging 11 percent of GDP from 1950 to 1953), the Vietnam War (averaging 8 percent from 1962 to 1973), and the defense buildup from 1982 to 1986 (averaging 6 percent). It has risen again more recently—from 2001 to the present—to support military operations in Iraq and Afghanistan and other activities related to the war on terrorism. During the intervening periods, defense spending tended to decline as a percentage of GDP. Overall, such spending has averaged about 5 percent of GDP during the past 40 years and about

Box 4-1.

How Funding for Operations in Iraq and Afghanistan and for Other Activities Related to the War on Terrorism Affects Projections of Defense Spending

Assumptions about future spending related to the war on terrorism or other military operations have a noticeable but modest effect on the long-term budget outlook under both the extended-baseline and the alternative fiscal scenarios.

In fiscal year 2007, the Congress appropriated approximately $170 billion for the cost of operations in Iraq and Afghanistan and other activities related to the war on terrorism. Public Law 109-289, enacted in September 2006, provided an initial $70 billion. In May 2007, the Congress provided an additional $100 billion in Public Law 110-28.[1]

The Administration has requested $196 billion in additional war funding for 2008. As of early December 2007, $17 billion of that funding has been appropriated.

For the extended-baseline scenario, the Congressional Budget Office (CBO) assumed that spending for programs other than Medicare, Medicaid, and Social Security would continue to grow as specified by standard baseline rules (through 2017) and then remain constant as a share of gross domestic product (GDP) for years after 2017.[2] That long-term outlook is constructed from CBO's March 2007 baseline, under which CBO estimated that outlays for war-related activities in fiscal year 2007 would total just under $100 billion (including spending from the $70 billion that had been appropriated to date for 2007 and from funds provided in prior fiscal years). That 2007 amount represents about 0.7 percent of GDP. By 2017, spending from inflating the $70 billion over the 10-year baseline period represents about 0.4 percent of GDP.

---

1. Most of the 2007 funding was for military operations, although a small portion ($5 billion) was appropriated for international assistance activities in Iraq and Afghanistan and to provide additional benefits for veterans.

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.

---

4 percent of GDP over the past 20 years. (For a discussion of how military operations in Iraq and Afghanistan affect projected spending, see Box 4-1.)

Nondefense Discretionary Spending

Discretionary spending for nondefense activities, such as education grants, housing, highways, and national parks, will total 3.6 percent of GDP in fiscal year 2007; under the assumptions of CBO's 10-year baseline, it would constitute about 2.8 percent of GDP in 2017, CBO projects. Over the past 40 years, discretionary spending for nondefense activities has generally ranged between 3 percent and 4 percent of GDP. The one exception was the 1975–1981 period, during which nondefense discretionary spending rose to about 5 percent of GDP.

Other Mandatory Spending

Other mandatory spending (that is, excluding outlays for Social Security, Medicare, and Medicaid) totaled about 2.3 percent of GDP in fiscal year 2007 and is projected to be 2.0 percent in 2017 under 10-year baseline assumptions. Other mandatory spending includes an amalgam of federal programs—including, for example, federal civilian and military retirement benefits, Food Stamps, unemployment compensation, and veterans' benefits—as well as 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 payments for drilling rights on the Outer Continental Shelf. Other mandatory

Box 4-1.

Continued

With the additional funding that was provided after the March baseline was released, total war-related spending in fiscal year 2007 was closer to 1 percent of GDP. Including the additional war-related spending that occurred in 2007 but was not reflected in CBO's March baseline would boost projected spending under the two long-term budget scenarios. Extrapolating the final funding level for 2007 (including the additional appropriation of $100 billion in Public Law 110-28) to later years would raise projected spending under the extended-baseline scenario by 0.5 percent of GDP in 2017 and thereafter (see the table). The fiscal gap would rise by slightly less than 0.5 percent of GDP.[3] Similarly, under the alternative fiscal scenario, after an adjustment for the additional spending that occurred in 2007 for war-related activities, the projection of other federal spending would increase by 0.2 percent of GDP in 2017 and thereafter.

---

3. The fiscal gap measures how much the government would have to immediately and permanently either raise tax revenues or cut spending—or do both, to some extent—to make the government's debt at the end of a given period the same size relative to the economy as it is at the beginning.

Future spending for operations in Iraq, for other activities related to the war on terrorism, or for other military operations could be more or less than has been assumed under CBO's scenarios. (See, for example, a letter from CBO Director Peter Orszag to Senator Kent Conrad, in September 2007, on "The Possible Costs to the United States of Maintaining a Long-Term Military Presence in Iraq.") Such differences would affect the nation's long-term fiscal gap, although probably not significantly.

Projected Spending for War-Related Activities Under CBO's Long-Term Budget Scenarios

(Percentage of gross domestic product)

	Assumptions Used for Long-Term Scenarios	Assumptions If Additional $100 Billion Is Included
Under the Extended-Baseline Scenario, 2017 to 2082	0.4	0.9
Under the Alternative Fiscal Scenario, 2008 to 2082	0.7	0.9

spending, after peaking during the mid-1970s to the early 1980s, has moved up and down around a 20-year average of 2.8 percent of GDP (see Figure 4-2).

In its previous long-term budget projections, CBO included offsetting receipts from Medicare premiums in its calculations of other federal spending. For this long-term outlook, CBO has netted those offsetting receipts for premiums against the outlays for Medicare in order to calculate costs for the Medicare program.

Figure 4-1.

Discretionary Spending as a Percentage of Gross Domestic Product
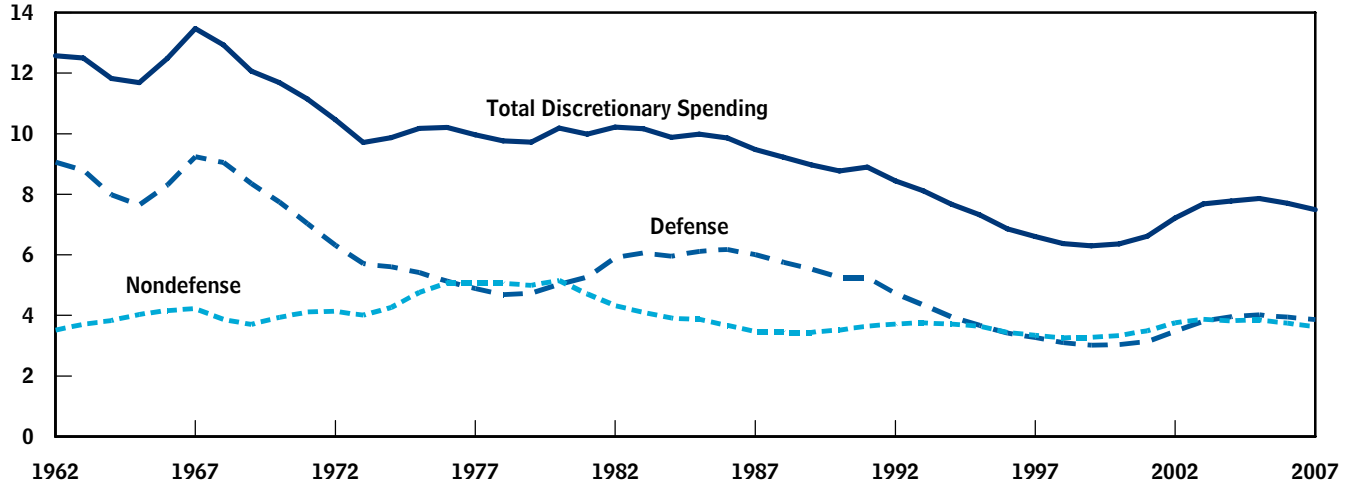
(Percent)

Source: Congressional Budget Office.

Figure 4-2.

Mandatory Spending Other Than That for Social Security, Medicare, and Medicaid as a Percentage of Gross Domestic Product

(Percent)

Source: Congressional Budget Office.

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 th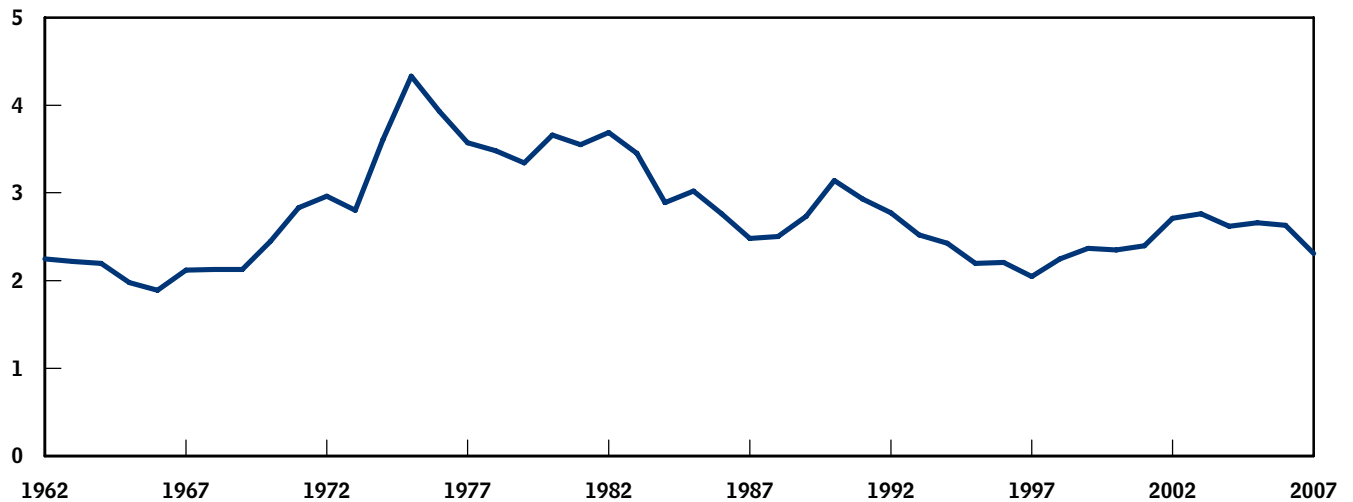e level and composition of revenues frequently and will probably make significant changes to the tax system over the next 75 years.

Many potential paths exist for future revenues, and 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 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 2001 and 2003 tax cuts expire as scheduled, and the individual alternative minimum tax remains unchanged. Under that scenario, estimated revenues for the first 10 years of the projection period would be consistent with those in the Congressional Budget Office's March 2007 baseline. After 2017, revenues are projected to rise relative to gross domestic product. Between 2007 and 2082, under this scenario, revenues would increase by roughly 6.5 percentage points of GDP (see Figure 5-1).

The alternative fiscal scenario starts with the tax law in place in 2007 for the individual income tax and generally assumes that law is unchanged through 2082. None of the scheduled changes in tax law beyond 2007 are assumed to take effect. This scenario also assumes that the parameters of the AMT will be indexed for inflation after 2007. Under this scenario, revenues would rise by roughly 2 percentage points of GDP between now and 2082.

Over 75 years, the cumulative effects of inflation and real (inflation-adjusted) income growth interact with the tax system in both scenarios (although to a lesser extent in the alternative fiscal scenario). The result is higher average tax rates (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 push about half of all households into the AMT by 2035—and by 2082, the AMT would be the individual income tax system for over three-quarters of all households.
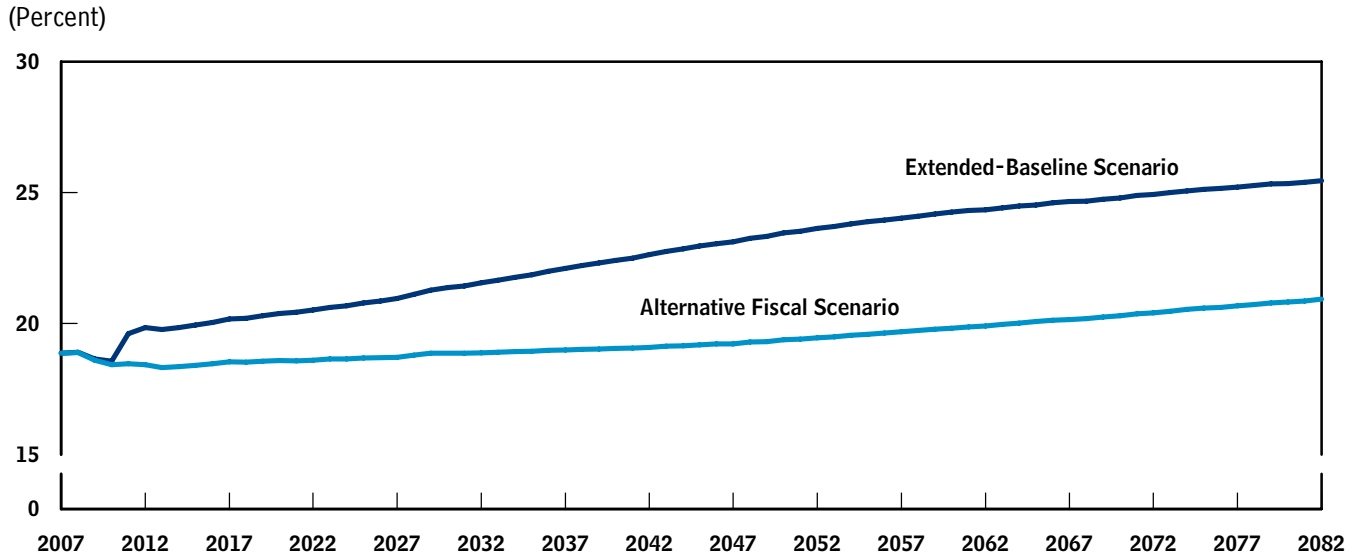
Revenues Over the Past 50 Years

In the past half-century, total revenues have ranged from 16.1 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 about 14 percent to overall revenues and constitute 1 percent to 2 percent of GDP, down from nearly 5 percent in 1957. Revenues from other taxes and duties as well as miscellaneous receipts make up the balance— accounting for between roughly 1 percent and 3 percent of GDP over the past 50 years.

Much of the variation in the composition of total tax revenues has resulted from legislative changes, as policymakers have adjusted tax rates and other parameters of the tax system. Some of the variation, however, has stemmed from the interaction of the tax code and changes in the

Figure 5-1.

Total Federal Revenues as a Percentage of Gross Domestic Product Under CBO's Long-Term Budget Scenarios

(Percent)

Source: Congressional Budget Office.

Note: The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budet projections from 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the 75-year projection period, to 2082. The alternative fiscal scenario deviates from CBO's baseline projections even during the next 10 years, incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

economy. For example, excise tax 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 and thus have diminished in importance as the economy has experienced inflation. In contrast, income tax receipts have tended to rise relative to GDP as increases in prices have caused various thresholds in the income tax system to decline in real terms and therefore boosted the amount of income subject to taxation at higher rates.

Over the years, legislators have often changed parameters of the tax system to offset the impact of economic changes on taxes. In the case of the individual income tax, much of the system was eventually indexed to prevent inflation from raising income taxes relative to GDP. Even so, real growth results in higher average tax rates under current law as 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 conditions 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 most 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, which means that households with higher incomes are taxed at higher rates. Consequently, as GDP and hence individual incomes grow, an ever-larger proportion of income will be subject to higher tax rates. That growth of income will both increase the amount of income taxed at the highest rates and decrease the amount of earned income tax credits claimed by low-income taxpayers. Because much of the tax system is indexed for inflation, that phenomenon will occur primarily as a result of real GDP growth. But because some features of the regular income tax system are not indexed, inflation will cause additional, although modest, increases in receipts relative to GDP by 2082.

Figure 5-2.

Revenues, by Source, as a Share of Gross Domestic Product for Fiscal Years 1957 to 2007

(Percent)
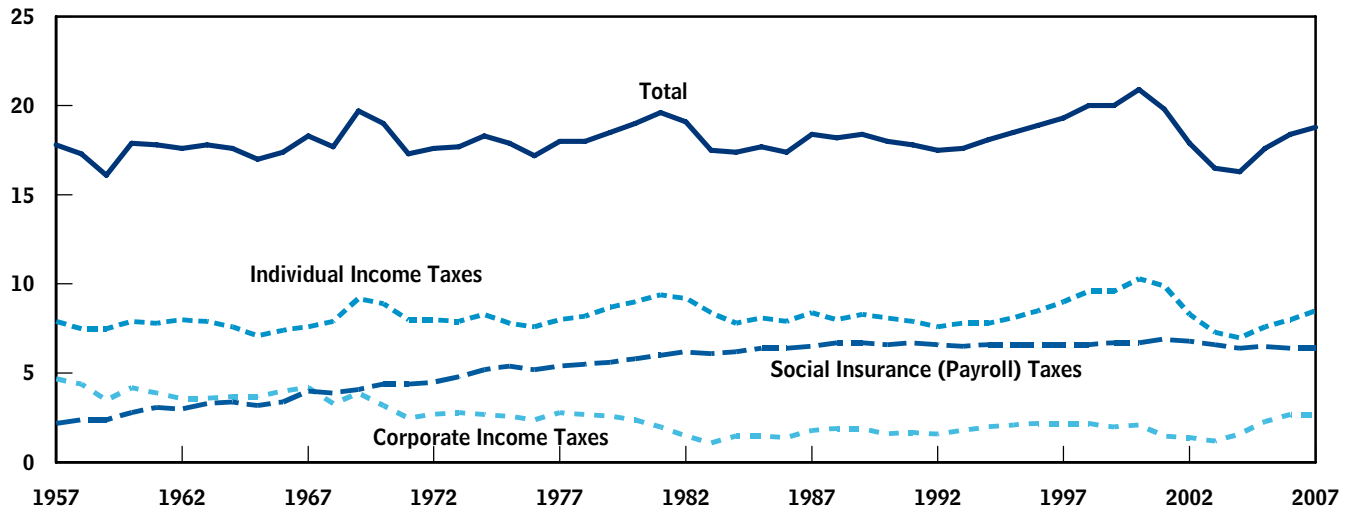
Source: Congressional Budget Office.

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 incomes grow. The AMT is a parallel income tax system with fewer exemptions, deductions, and rates than the regular income tax system. 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, sustained inflation causes more taxpayers to pay the AMT (as their nominal income rises over time) and causes the AMT to claim an ever-larger share of GDP.

Third, current tax law embodies 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 the tax code reverts 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 contributions to employer-sponsored defined-benefit plans are tax-exempt when they are made. The income earned on assets in those accounts also is exempt from taxes, but withdrawals from those plans are taxable. Those sums will become a rising portion of taxable income as the baby boomers retire, which will tend to boost receipts relative to GDP.

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

Although less important in magnitude, the design of two other tax sources contributes to changes in the share of GDP that such taxes claim over time. Most excise tax revenues stem from duties that are levied as a fixed charge per unit purchased. Under current law, the fee schedule is

---

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).

projected to stay the same for most excise taxes. In that way, excise taxes will not grow as fast as the economy and thus will decline relative to GDP over time. In contrast, the estate tax exemption under current law is projected to remain fixed after 2011. As a result, a greater share of wealth will be subject to that 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 fall in excise tax revenues as a share of GDP.

Both corporate and payroll taxes are projected to remain relatively constant as a share of their tax bases—wages and corporate profits, respectively—over the next 75 years. Most corporate profits are taxed at the top corporate tax rate, so real bracket creep does not lead to a higher average tax rate over time. Because profits are assumed to maintain a constant share of GDP over the long term, the projected corporate tax share likewise remains constant.

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 over the next 75 years, therefore, comes from the previously mentioned impact of rising costs for health care on the wage 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 scenario would extend the current revenue baseline. It thus assumes that current law remains in place—and in particular, that:

■ The provisions of EGTRRA and JGTRRA expire (or "sunset") as scheduled,

■ Policymakers do not modify the AMT, and

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

Although there is some tendency over the long term for rising health care costs to reduce receipts relative to GDP, the overwhelming effect of the tax system's current-law features is to raise receipts relative to GDP; most of that revenue growth comes from the individual income tax. Consequently, under the extended-baseline scenario, receipts would rise from just under 19 percent of GDP in 2007 to 22 percent by 2040 and 25 percent by 2082.

The alternative fiscal scenario assumes that the parameters of the 2007 tax law are maintained for the personal income tax through 2082:

■ The provisions of EGTRRA and JGTRRA are assumed not to expire,

■ The parameters of the tax code that are indexed for inflation are assumed to grow with inflation, and

■ Unindexed parameters are assumed to maintain their 2007 value. (The exception to that rule is that the parameters of the AMT are assumed to be indexed for inflation beginning in 2008.)

Payroll taxes under this scenario would be the same as under the extended-baseline scenario. Other sources of revenue—except for the corporate income tax—are assumed to maintain their same ratio to GDP as in 2007. Corporate income taxes between 2007 and 2017 would follow the path projected in CBO's 10-year baseline, which assumes that corporate profits vary relative to GDP. Corporate taxes would be held constant as a share of GDP after 2017, when the corporate profit share of GDP is assumed to be constant. Under the alternative fiscal scenario, revenues would reach 19 percent of GDP in 2040 and rise to just under 21 percent by 2082. (For CBO's assumptions about particular revenue sources under the two scenarios, see Table 5-1.)

Individual Income Taxes

Under both the extended-baseline and alternative fiscal scenarios, the individual income tax would be responsible for the bulk of the revenue increase relative to GDP. The rise in income tax receipts relative to GDP, though, would be much larger under the extended-baseline scenario. Individual income tax revenues would rise by about 7.3 percentage points between 2007 and 2082 under that scenario and by about 3.6 percentage points under the alternative fiscal scenario. The difference of 3.6 percentage points between the two scenarios is largely

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	2007 law with AMT parameters indexed to inflation after 2007
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 and Estate and Gift Taxes	As scheduled under current law	Constant as a share of GDP for the entire period
Other Revenues	As scheduled under current law through 2017; constant as a share of GDP thereafter	As scheduled under current law through 2017; constant as a share of GDP thereafter

Source: Congressional Budget Office.

Note: AMT = alternative minimum tax; GDP = gross domestic product.

attributable to the impact of two factors incorporated in the extended-baseline scenario—the mounting effects of the AMT and the expiration of EGTRRA and JGTRRA—both of which are currently the subject of considerable legislative interest. [2]

Whereas most parameters of the regular individual income tax are indexed for inflation, the parameters of the AMT are not. Because a taxpayer must pay the greater of the AMT or the regular tax, the lack of indexing under the AMT is responsible for most of its growing impact over time. That impact can be measured by comparing the alternative fiscal scenario, which assumes indexing of the AMT's parameters, with a variant of the extended-baseline scenario, which does not. Both assume that the EGTRRA and JGTRRA tax provisions continue beyond 2010 after their scheduled expiration. (In that regard, the variant differs from the extended-baseline scenario.) In 2017, individual income tax revenues are projected to be 0.6 percentage points higher under this variant of the extended-baseline scenario, and that difference grows to 2.9 percentage points by 2082 as the cumulative effect of inflation causes more taxpayers to be subject to the AMT (see Figure 5-3).[3]

Comparing the extended-baseline scenario with the variant in which the 2001 and 2003 tax legislation does not expire highlights the impact of the assumptions regarding EGTRRA and JGTRRA. The expiration of EGTRRA and JGTRRA contributes about 1 percentage point to the higher receipts-to-GDP ratio in 2011; the effect declines to about 0.6 percentage points in 2045 and holds at roughly that level through 2082. The explanation for that ebbing impact lies in the growth of the AMT. As more individual income taxes are paid through the AMT over time, the amount of the tax change triggered by the sunset of EGTRRA and JGTRRA will decline because many of the provisions of those laws do not benefit taxpayers who are subject to the AMT.

In total, individual income tax revenues would be about 1.2 percentage points higher in 2011 under the extended-baseline scenario. That difference would rise to 3.2 percentage points by 2045 and to 3.6 percentage points by 2082.

Individual income tax revenues under the alternative fiscal scenario would continue to rise as a share of GDP, even though that scenario would remove the impact of the AMT and expiration of EGTRRA and JGTRRA. The increase in receipts as a share of GDP under that

---

2. At the time this report was written, the Congress was considering increasing the exemption amounts for the AMT for 2007 along with other changes to tax law. If only the AMT exemption changes were enacted, revenues would be lower by 0.4 percent of GDP in 2007 under both scenarios. Revenues under the extended-baseline scenario would remain unchanged for years beyond 2007. Revenues under the alternative fiscal scenario would be lower by between 0.4 percent and 0.5 percent of GDP for each year after 2007.

3. To more easily compare this variant of the extended-baseline scenario with the alternative fiscal scenario, both of those scenarios 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 as a Percentage of Gross Domestic Product Under Alternative Scenarios
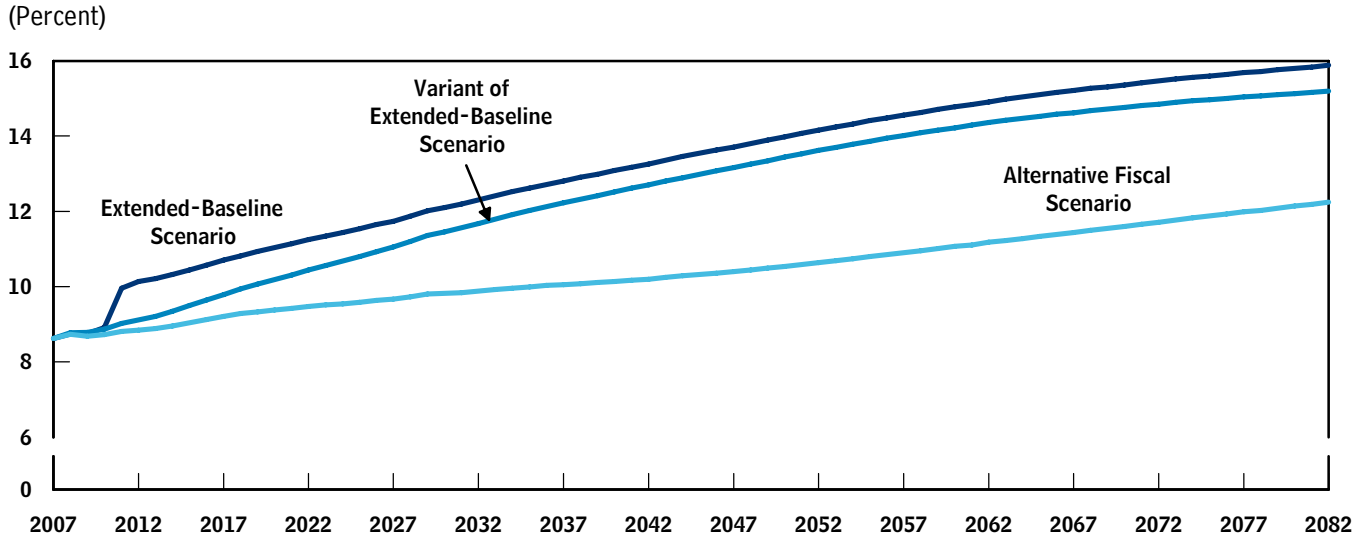
(Percent)

Source: Congressional Budget Office.

Note: The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budet projections from 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the 75-year projection period, to 2082. The variant of the extended-baseline scenario assumes that the provisions of the Economic Growth and Tax Relief Reconciliation Act of 2001 and the Jobs and Growth Tax Relief Reconciliation Act of 2003 do not expire as scheduled at the end of 2010. The alternative fiscal scenario deviates from CBO's baseline projections even during the next 10 years, incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

scenario is largely attributable to the progressive rate structure of the tax system. As income grows, more income is taxed at higher rates, increasing income tax revenues relative to GDP by 1.7 percentage points by 2045 and by 3.6 percentage points by 2082. Most of that increase stems from real bracket creep. But because even a low annual rate of inflation would amount to a significant increase in prices by 2082, some of the rising ratio of receipts to GDP under the alternative fiscal scenario is attributable to the interaction of 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 inflationary growth in income, those parameters of the tax system that tend to push up revenues relative to GDP would no longer do so.

Another factor contributing to the increase in income tax revenues as a share of GDP—through about 2030—is the retirement of the baby-boom generation. Taxable distributions from retirement plans will rise as a share of GDP as the portion of the population receiving pension benefits grows through 2030 and levels off thereafter. As a

result, between 2007 and 2030, projected revenues would climb by about 0.5 percentage points of GDP under both scenarios. Beyond 2030, the net impact of contributions, earnings, and withdrawals would do little to change the revenue share of GDP.

Partially offsetting the factors that tend to cause receipts from individual income taxes to rise as a share of GDP is the projected growth in health care costs, which is expected to exceed growth in GDP (so-called excess cost growth) and thus tend to reduce the revenue share over time. For this analysis, CBO projects that private health care costs will rise from 11 percent of GDP in 2007 to 30 percent in 2082. Such growth in health care costs would reduce 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 in taxable wages. Second, taxable income would be reduced because deductions related to medical expenses would also increase relative to income as health care costs rose. Those deductions include ones

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)
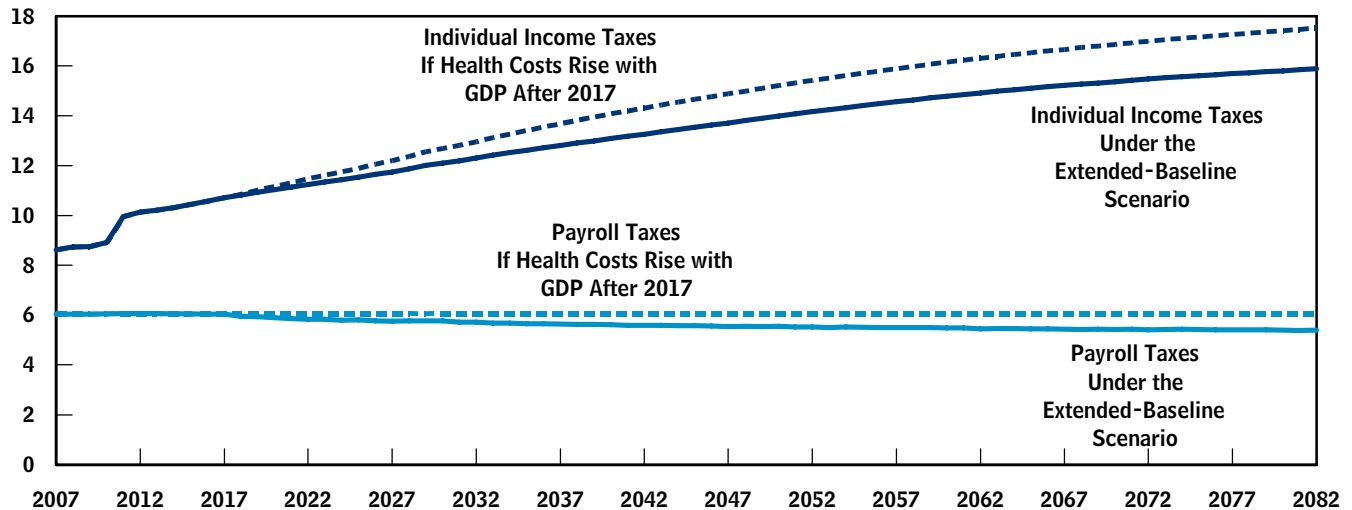
Source: Congressional Budget Office.

Note: The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budet projections from 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the 75-year projection period, to 2082.

for health insurance premiums of self-employed individuals and for medical expenses.

The impact of rising health care costs on revenues 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). The excess cost growth would reduce projected individual income tax revenues by 1.2 percentage points of GDP by 2050 and 1.6 percentage points by 2082. The lower taxable wages that resulted from faster growth in health care costs would also affect the payroll tax base, reducing projected payroll tax revenues by 0.7 percentage points of GDP by 2082. Rising health care costs would reduce the growth in revenues under the alternative fiscal scenario as well. (By reducing taxable wages, growth in health care costs would eventually reduce Social Security benefits, offsetting some of the negative effects on the budget from reduced payroll tax revenues.)
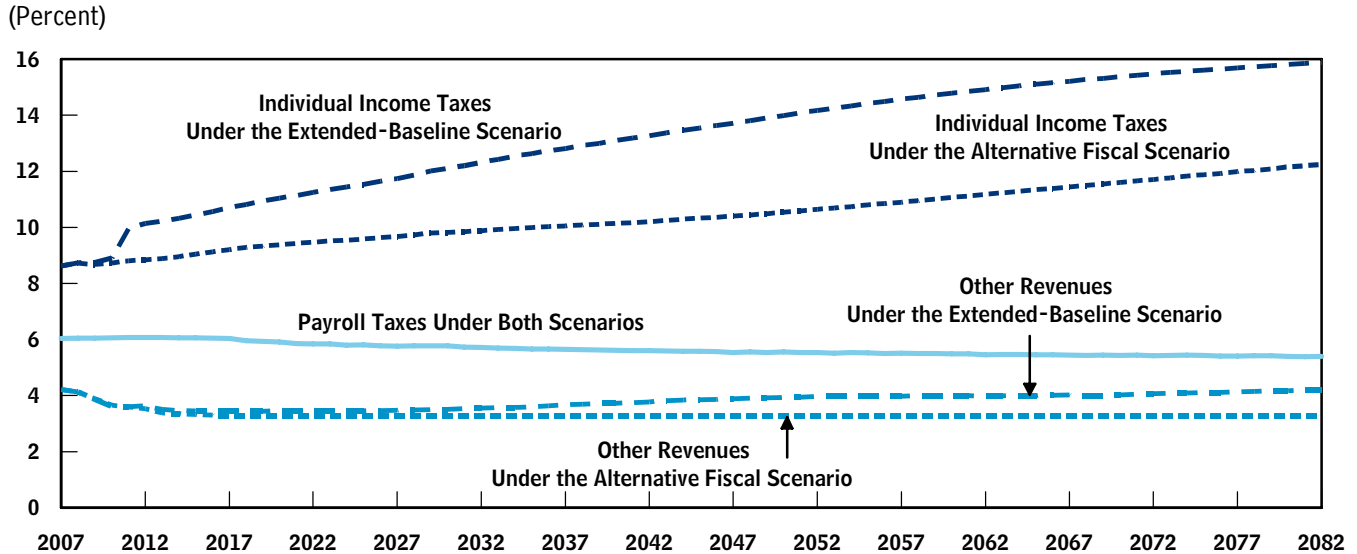
Other Revenues

Payroll tax revenues are projected to fall slightly under both scenarios—from about 6.0 percent of GDP in 2007

to 5.4 percent by 2082 (see Figure 5-5). Rising health care costs account for the entire expected decline in payroll taxes. Were it not for 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 Security—is effectively indexed for both real and inflationary growth (unlike the income tax) because it is tied to average wages.[4]

---

4. If the maximum earnings for the OASDI portion were indexed only for inflation, the payroll tax share of GDP would decline over time because a greater share of wages would not be subject to that tax. Full indexing of the taxable maximum to growth in average earnings holds the payroll tax share of GDP constant if there are no significant changes in the wage distribution. 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 for the first 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 revenues are offset by higher revenues from the individual income tax.

Figure 5-5.

Sources of Federal Revenues as a Percentage of Gross Domestic Product Under CBO's Long-Term Budget Scenarios

(Percent)

Source: Congressional Budget Office.

Note: The extended-baseline scenario adheres closely to current law, following CBO's 10-year baseline budet projections from 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the 75-year projection period, to 2082. The alternative fiscal scenario deviates from CBO's baseline projections even during the next 10 years, incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

Revenues other than those from individual income taxes and payroll taxes follow different paths under the two scenarios. Under the extended-baseline scenario, other revenues would decline by 0.8 percentage points of GDP between 2007 and 2017 and then rise by 0.7 percentage points of GDP by 2082. The decrease during the 10-year baseline period mainly reflects the decline in corporate tax revenues as a share of GDP resulting from the expected drop in corporate profits from their historically high levels. (Once the profit share of GDP stabilizes after 2017, projected corporate tax revenues remain a constant share of GDP because virtually all corporate taxable income is effectively taxed at a flat rate, the top statutory rate.)

The rise in other revenues as a share of GDP between 2017 and 2082 is the net result of projected trends in excise taxes and estate and gift taxes (corporate and other miscellaneous revenues are assumed to be constant as a share of GDP over that period). Excise taxes as a share of GDP are expected to decline by 0.3 percentage points between 2017 and 2082 under the extended-baseline scenario because most excise taxes are specific levies and

would thus diminish in importance as inflation accumulated over the period. That decline in the excise tax share would be more than offset by an expected increase of 1.0 percentage points of GDP in estate and gift tax revenues. The amount of wealth exempt from the estate tax is not indexed for inflation or real growth and therefore, over time, a greater share of wealth would be subject to the tax under the extended-baseline scenario.

Under the alternative fiscal scenario, most other revenues are assumed to be constant as a share of GDP between 2007 and 2082. An exception is the corporate income tax, because the corporate tax base is not constant as a share of GDP until after 2017. Between 2007 and 2017, corporate income taxes as a percentage of GDP would follow CBO's 10-year baseline and reflect the expected decline in corporate profits as a share of GDP.
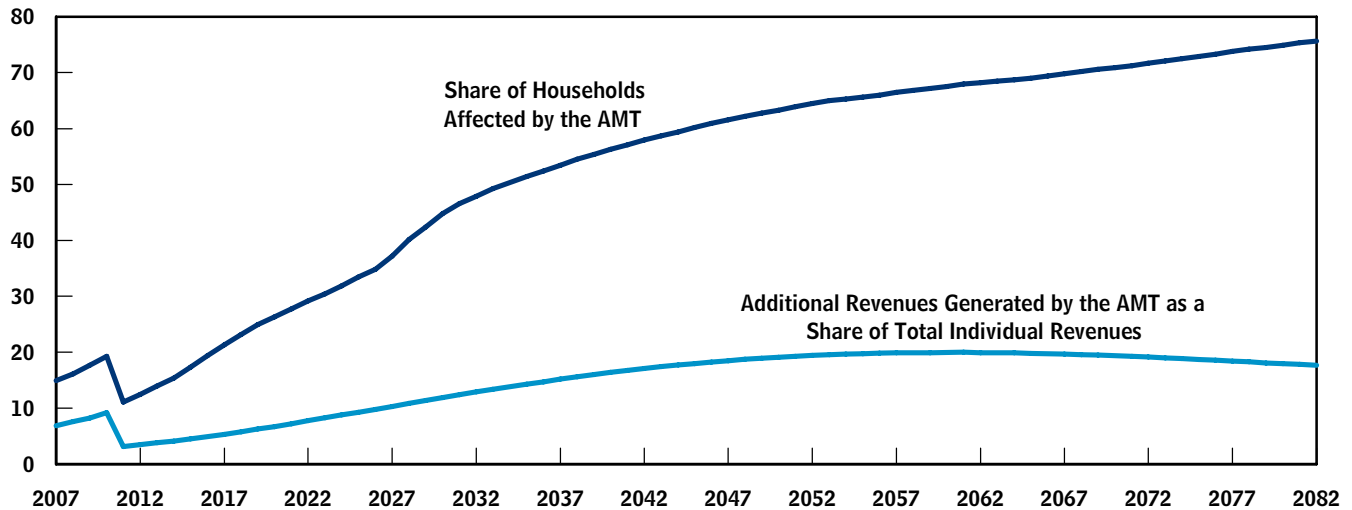
Implications of the Long-Term Budget Scenarios for Revenues

Inflation and income growth would interact with the tax parameters in both revenue paths to change the char-

Figure 5-6.

The Impact of the Alternative Minimum Tax on Individual Income Tax Revenues 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 budet projections from 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the 75-year projection period, to 2082.

acteristics of the tax system over time. The tax system in 2082 under the extended-baseline scenario would have very different characteristics than the tax system of 2007. Many more taxpayers would pay the AMT in 2082; marginal and average tax rates would be higher, and the dollar value of some parameters of the tax would fall sharply in real terms and even faster relative to income. As a result of all of those changes, the share of income paid in taxes at various points in the income distribution in 2082 would differ greatly from the share in 2007. Changes to the tax system from the expiration of EGTRRA and JGTRRA after 2010 would be less significant than many of the changes that resulted from the cumulative effect of growth in price levels and incomes over many years. Under the alternative fiscal scenario, the changes in the tax system between 2007 and 2082 would also be significant, even though that scenario does not have 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.

Impact of the AMT

The effect of the AMT on taxpayers is especially significant under the extended-baseline scenario. By 2045, roughly 18 percent of individual income tax liability

would be generated by the AMT, compared with about 7 percent today (see Figure 5-6). The AMT's contribution to receipts, though, gives little indication of the number of people affected by the tax. Roughly 60 percent of the nation's households would be subject to the AMT by 2045, a dramatic increase from the current 15 percent.

The share of households subject to the AMT under the extended-baseline scenario is projected to continue to increase to roughly 75 percent by 2082. The AMT's share of total revenues would likewise continue to rise beyond 2045, reaching its peak around 2060, at which point it would begin to decline. AMT revenue growth would eventually level off as real bracket creep caused a greater share of income to be subject to the top marginal tax rate under the regular 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 decline.

The indexing of the AMT's parameters under the alternative fiscal scenario would mitigate most additional revenue growth generated by the AMT under the

Table 5-2.

Estimates of the Effective Marginal Federal Tax Rates on Capital and Labor Income Under CBO's Scenarios

(Percent)

	2007	2040	2082
Marginal Tax Rate on Labor Income			
Extended-baseline scenario	27.9	31.1	29.9
Alternative fiscal scenario	27.9	27.9	28.6
Marginal Tax Rate on Capital Income			
Extended-baseline scenario	14.3	16.3	19.2
Alternative fiscal scenario	14.3	13.8	16.1

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 budet projections from 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the 75-year projection period, to 2082. The alternative fiscal scenario deviates from CBO's baseline projections even during the next 10 years, incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

extended-baseline path. The share of individual income tax revenue generated by the AMT would hold steady at roughly 7 percent from 2007 through 2082. The fraction of households subject to the AMT would rise from about 15 percent to about 30 percent between 2007 and 2082 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

Marginal tax rates on income from labor and capital would increase under both revenue scenarios. 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. The future path of economic output would depend not only on the marginal tax rates under the two scenarios but also on the paths of overall spending and reve-

nues. (For further discussion of the interaction of the two scenarios and economic output, see Chapter 1.)

CBO estimates that under the extended-baseline scenario, the marginal tax rate on labor will increase by 3.2 percentage points between 2007 and 2040 and decrease somewhat between 2040 and 2082 (see Table 5-2). Marginal tax rates on labor would rise after 2007 because of the expiration of EGTRRA and JGTRRA after 2010 and because of real bracket creep under the regular tax and the growing number of taxpayers affected by the AMT. The anticipated increase in rates from those aspects of the tax system would be off-set by the decline in the share of compensation subject to both the income and payroll taxes as a result of the increasing share of compensation expected to be paid as nontaxable health insurance. Under the alternative fiscal scenario, marginal tax rates on labor would be relatively flat after 2007. Rates rise to a lesser extent than under the extended-baseline scenario because the AMT and the expiration of EGTRRA and JGTRRA do not play a significant role.

Marginal tax rates on capital under the extended-baseline scenario would increase by 2.0 percentage points between 2007 and 2040 and by an additional 2.9 percentage points between 2040 and 2082. As with the marginal tax rates on labor, the marginal tax rates on capital would be lower under the alternative fiscal scenario. Under that scenario, rates would be 2.5 and 3.1 percentage points lower in 2040 and 2070, respectively, than those in the extended-baseline scenario.

Impact of Inflation

Between 2007 and 2082, the cumulative effect of rising prices sharply reduces 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 is reduced to less than $200 by 2082 (when measured in 2007 dollars). Under the extended-baseline scenario, the exemption of the first $1 million of wealth from the estate tax in 2017 is reduced to less than $200,000 by 2082 (again, in 2007 dollars). The amount of mortgage debt that is eligible for the mortgage interest deduction is also reduced from $1 million to $200,000 under both scenarios (in 2007 dollars). The portion of Social Security benefits subject to taxation increases under both scenarios, climbing from 26 percent in 2007 to 57 percent by 2082 (because the thresholds for taxing benefits are fixed).

Even parameters that are indexed for inflation would lose value relative to income over the 75-year period. The $3,400 personal exemption in 2007 would quintuple between 2007 and 2082 because it is indexed for inflation, but per capita income would rise by 11 times during that period, so the value of the exemption relative to income would decline by 55 percent. The proportion of taxpayers claiming the earned income tax credit (EITC) would decline from 15 percent in 2007 to less than 5 percent in 2082 under both scenarios as growth in real incomes moved most taxpayers out of the income range for EITC eligibility. As more taxpayers and a greater proportion of income are taxed in higher tax brackets over time, the share of income in the top bracket under the regular tax system is projected to grow from 8 percent in 2007 to 14 percent by 2082.

The lack of any indexing for some parameters and indexing only to inflation for others has significant implications beyond the usual tax policy horizon. Locking the current rules in place for 75 years would cause individual income taxes to change differentially for taxpayers at different points in the income distribution. For example, a married couple with two children earning the median income in 2007 pays about 4 percent of their income in individual income taxes (see Table 5-3).[5] By 2082, under the extended-baseline scenario, a couple at that point in

---

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

the distribution would pay 17 percent of their income in individual income taxes, an increase of 13 percentage points. In contrast, a couple with income four times the median would see their share of income paid in income taxes rise from 21 percent in 2007 to 26 percent by 2082 under the extended-baseline scenario, an increase of only 5 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.

Even though average income tax rates would be rising in both cases, taxpayers at the same point in the income distribution would be better off in 2082 because incomes would have risen significantly. In the above example, average pretax income would be up by 280 percent, and after-tax income would be up by 260 percent (both measured in 2007 dollars). The rise in income would dominate the increase in average tax rates.

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

Table 5-3.

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

| | | | Taxes as a Share of Income (Percent) | | | |
| | | | Extended-Baseline Scenario | | Alternative Fiscal Scenario | |
		Income (2007 dollars)	Income Taxes	Income and Payroll Taxes	Income Taxes	Income and Payroll Taxes
			Single Taxpayer			
Half Median Income	2007	18,766	2	12	2	12
	2050	35,176	4	11	3	10
	2082	53,147	7	15	4	11
Median Income	2007	37,534	7	19	7	19
	2050	70,351	11	22	8	19
	2082	106,293	16	27	10	20
Twice Median Income	2007	75,067	11	24	11	24
	2050	140,703	19	31	13	26
	2082	212,587	19	32	15	28
Four Times Median Income	2007	150,135	15	26	15	26
	2050	281,406	21	31	20	30
	2082	425,173	22	32	21	31
			Married Couple with Two Children[a]			
Half Median Income	2007	44,803	-8	3	-8	3
	2050	83,733	6	14	2	10
	2082	126,809	11	19	4	11
Median Income	2007	89,606	4	16	4	16
	2050	167,465	16	27	9	20
	2082	253,617	17	28	12	23
Twice Median Income	2007	179,211	13	23	13	23
	2050	334,930	20	29	18	26
	2082	507,234	20	29	20	28
Four Times Median Income	2007	358,423	21	27	21	27
	2050	669,860	24	30	22	27
	2082	1,014,469	26	32	23	28

Source: Congressional Budget Office.

Notes: Median income amounts are derived from the March 2006 Current Population Survey and are measured in 2007 dollars. All income is assumed to be from compensation. (Compensation includes employer-provided health insurance and the employer's share of the payroll tax.)

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 budet projections from 2008 to 2017 and then extending the baseline concept in its projections for the rest of the years in the 75-year projection period, to 2082. The alternative fiscal scenario deviates from CBO's baseline projections even during the next 10 years, incorporating some changes in policy that are widely expected to occur and that policymakers have regularly made in the past.

a.   The examples for the married couple assume that one spouse works.