

Deficits and Debt

Overview

Under the assumption that current laws governing taxes and spending will generally remain unchanged in future years, federal budget deficits are set to remain at a very high level by historical standards throughout the next decade, the Congressional Budget Office projects (see Figure 1-1). As a result of those deficits, federal debt would rise each year through 2029.¹

Large Deficits

Federal deficits in CBO's baseline average \$1.2 trillion per year and total \$11.6 trillion over the 2020–2029 period (see Table 1-1). Those deficits would average 4.4 percent of gross domestic product (GDP). Other than the period immediately after World War II, the only other time the average deficit has been so large over so many years was after the 2007–2009 recession. Over the past 50 years, the annual deficit has averaged 2.9 percent of GDP.

Growing Debt

The large deficits over the next 10 years would cause debt held by the public to rise steadily. Relative to the nation's output, that debt is projected to increase from 78 percent of GDP in 2018 to 93 percent at the end of 2029. At that point, federal debt would be higher as a percentage of GDP than at any point since just after World War II—and heading still higher.

Uncertainty of Budgetary Outcomes

Considerable uncertainty surrounds CBO's budget projections, which depend on the agency's economic projections and many other factors. Developments that vary from what CBO projects could lead to budgetary outcomes that are very different from the baseline. That

uncertainty tends to increase in later years of the projection period because changes in the economy, demographics, and a variety of other factors are more difficult to anticipate over longer time horizons.

Moreover, outcomes will depend on future legislative action, which could increase or decrease budget deficits. For example, CBO's baseline projections reflect a number of significant changes to tax and spending policies that are scheduled to take effect under current law, but which could be modified by future legislation. If the scheduled changes did not occur and current policies were continued instead, much larger deficits and greater debt would result: By 2029, the deficit would exceed CBO's baseline estimate by 2.3 percentage points of GDP; and debt held by the public would rise to 105 percent of GDP. (For more information on CBO's alternative fiscal scenario and other alternatives to CBO's baseline projections, see Chapter 5.)

Long-Term Budgetary Pressures

Beyond 2029, if current laws remained generally unchanged, deficits would continue to grow over the following 20 years, driving debt to its highest levels in the nation's history. Those large budget deficits would arise because outlays—particularly for Social Security, Medicare, and interest on the debt—would grow steadily under current law, and revenues would not keep pace with those outlays.

Deficits

Under the assumption that current laws governing taxes and spending generally remain in place, the amount by which the government's outlays exceed its revenues would rise from \$779 billion in 2018 to about \$1.2 trillion a year in 2025, 2026, and 2027. The budget deficit would increase to \$1.4 trillion in 2028 and 2029, CBO projects.

The Deficit in 2019

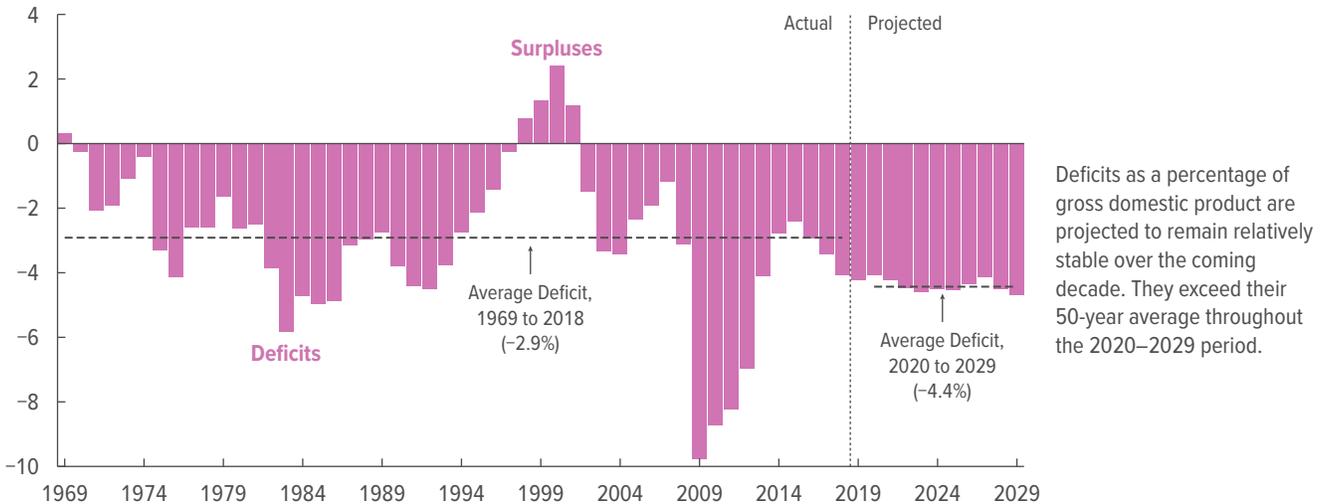
In CBO's baseline projections, the budget deficit in 2019 is \$897 billion, \$118 billion more than the shortfall last

1. CBO constructs its baseline in accordance with provisions set forth in the Balanced Budget and Emergency Deficit Control Act of 1985 (Deficit Control Act, Public Law 99-177) and the Congressional Budget and Impoundment Control Act of 1974 (P.L. 93-344). CBO's baseline is not intended to be a forecast of budgetary outcomes; rather, it is meant to provide a neutral benchmark that policymakers can use to assess the potential effects of policy decisions.

Figure 1-1.

Total Deficits and Surpluses

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

When October 1 (the first day of the fiscal year) falls on a weekend, certain payments that would have ordinarily been made on that day are instead made at the end of September and thus are shifted into the previous fiscal year. All projections presented here have been adjusted to exclude the effects of those timing shifts. Historical amounts have been adjusted as far back as the available data will allow.

year.² That increase would be smaller if not for a shift in the timing of certain payments. The 2018 deficit was reduced by \$44 billion because certain payments that would ordinarily have been made on October 1, 2017 (the first day of fiscal year 2018), were instead made in fiscal year 2017 because October 1 fell on a weekend.³ If not for that shift, last year's shortfall would have been \$823 billion and the projected increase in the deficit in 2019 would have been \$74 billion (see Table 1-2).

2. Some agencies experienced a lapse in appropriations when authorities contained in the Continuing Appropriations Act, 2019—as extended by Public Law 115-298—expired on December 22, 2018. For those agencies, CBO's current baseline projections incorporate the amount of fiscal year 2019 funding that was provided before that expiration, annualized (that is, as if it was provided for the entirety of the fiscal year).
3. October 1 will fall on a weekend again in 2022, 2023, and 2028. In such cases, certain payments due on October 1 are made at the end of September and thus are recorded in the previous fiscal year. Those shifts will noticeably boost spending and the deficit in fiscal years 2022 and 2028; the timing shifts will reduce federal spending and deficits in fiscal years 2024 and 2029.

Following the enactment of the 2017 tax act (Public Law 115-97), revenues grew by less than 1 percent in 2018. CBO projects that, under current law, revenues will rise faster than GDP this year, increasing by nearly 6 percent (or \$186 billion), to \$3.5 trillion.

Outlays, which rose by 4 percent in 2018, are projected to increase by more than 6 percent (or \$260 billion) this year, to \$4.4 trillion. (The 2018 amount and the projections below reflect adjustments to exclude the effects of the timing shift.) All three major components of spending contribute to that increase:

- Net outlays for interest are anticipated to jump from \$325 billion in 2018 to \$383 billion in 2019, an increase of 18 percent (or \$59 billion). Higher interest rates this year, and, to a lesser extent, more federal debt, account for most of that change.
- Mandatory spending is expected to increase by about 5 percent (or \$135 billion) in 2019, to \$2.7 trillion. The reasons for that projected rate of growth include robust growth in spending for Social Security, which will increase by 6 percent in 2019, CBO estimates.

Table 1-1.

CBO's Baseline Budget Projections, by Category

	Actual, 2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total	
													2020– 2024	2020– 2029
In Billions of Dollars														
Revenues														
Individual income taxes	1,684	1,756	1,837	1,910	1,992	2,085	2,184	2,290	2,521	2,752	2,861	2,989	10,007	23,420
Payroll taxes	1,171	1,233	1,280	1,330	1,383	1,444	1,506	1,568	1,631	1,694	1,761	1,830	6,943	15,426
Corporate income taxes	205	245	274	292	319	358	399	428	427	409	426	428	1,642	3,760
Other	270	280	294	308	318	321	360	361	377	400	399	426	1,602	3,564
Total	3,329	3,515	3,686	3,841	4,012	4,208	4,448	4,647	4,956	5,254	5,446	5,672	20,195	46,170
On-budget	2,474	2,613	2,745	2,862	2,997	3,153	3,350	3,506	3,770	4,023	4,168	4,345	15,108	34,921
Off-budget ^a	855	902	940	978	1,015	1,055	1,098	1,141	1,185	1,231	1,278	1,327	5,087	11,249
Outlays														
Mandatory	2,520	2,695	2,834	2,995	3,240	3,371	3,493	3,737	3,957	4,161	4,500	4,584	15,933	36,872
Discretionary	1,263	1,334	1,295	1,299	1,319	1,338	1,362	1,399	1,431	1,465	1,505	1,530	6,614	13,943
Net interest	325	383	460	521	581	637	684	724	772	821	876	928	2,882	7,003
Total	4,108	4,412	4,589	4,814	5,140	5,347	5,539	5,859	6,160	6,446	6,881	7,042	25,430	57,818
On-budget	3,259	3,506	3,619	3,778	4,031	4,159	4,273	4,510	4,731	4,929	5,265	5,328	19,860	44,623
Off-budget ^a	849	906	970	1,036	1,109	1,187	1,266	1,349	1,428	1,518	1,616	1,714	5,569	13,195
Deficit (-) or Surplus	-779	-897	-903	-974	-1,128	-1,139	-1,091	-1,212	-1,204	-1,192	-1,435	-1,370	-5,235	-11,648
On-budget	-785	-893	-874	-915	-1,033	-1,007	-923	-1,005	-961	-905	-1,097	-982	-4,752	-9,703
Off-budget ^a	6	-4	-29	-58	-94	-132	-169	-208	-243	-287	-338	-387	-483	-1,945
Debt Held by the Public	15,751	16,636	17,601	18,626	19,795	20,976	22,112	23,372	24,625	25,866	27,338	28,739	n.a.	n.a.
Memorandum:														
Gross Domestic Product	20,236	21,252	22,120	22,939	23,778	24,672	25,642	26,656	27,667	28,738	29,862	31,006	119,151	263,080
As a Percentage of Gross Domestic Product														
Revenues														
Individual income taxes	8.3	8.3	8.3	8.3	8.4	8.4	8.5	8.6	9.1	9.6	9.6	9.6	8.4	8.9
Payroll taxes	5.8	5.8	5.8	5.8	5.8	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.8	5.9
Corporate income taxes	1.0	1.2	1.2	1.3	1.3	1.5	1.6	1.6	1.5	1.4	1.4	1.4	1.4	1.4
Other	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.3	1.4	1.3	1.4
Total	16.4	16.5	16.7	16.7	16.9	17.1	17.3	17.4	17.9	18.3	18.2	18.3	16.9	17.5
On-budget	12.2	12.3	12.4	12.5	12.6	12.8	13.1	13.2	13.6	14.0	14.0	14.0	12.7	13.3
Off-budget ^a	4.2	4.2	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
Outlays														
Mandatory	12.5	12.7	12.8	13.1	13.6	13.7	13.6	14.0	14.3	14.5	15.1	14.8	13.4	14.0
Discretionary	6.2	6.3	5.9	5.7	5.5	5.4	5.3	5.2	5.2	5.1	5.0	4.9	5.6	5.3
Net interest	1.6	1.8	2.1	2.3	2.4	2.6	2.7	2.7	2.8	2.9	2.9	3.0	2.4	2.7
Total	20.3	20.8	20.7	21.0	21.6	21.7	21.6	22.0	22.3	22.4	23.0	22.7	21.3	22.0
On-budget	16.1	16.5	16.4	16.5	17.0	16.9	16.7	16.9	17.1	17.2	17.6	17.2	16.7	17.0
Off-budget ^a	4.2	4.3	4.4	4.5	4.7	4.8	4.9	5.1	5.2	5.3	5.4	5.5	4.7	5.0
Deficit (-) or Surplus	-3.8	-4.2	-4.1	-4.2	-4.7	-4.6	-4.3	-4.5	-4.4	-4.1	-4.8	-4.4	-4.4	-4.4
On-budget	-3.9	-4.2	-4.0	-4.0	-4.3	-4.1	-3.6	-3.8	-3.5	-3.2	-3.7	-3.2	-4.0	-3.7
Off-budget ^a	*	*	-0.1	-0.3	-0.4	-0.5	-0.7	-0.8	-0.9	-1.0	-1.1	-1.2	-0.4	-0.7
Debt Held by the Public	77.8	78.3	79.6	81.2	83.2	85.0	86.2	87.7	89.0	90.0	91.5	92.7	n.a.	n.a.

Source: Congressional Budget Office.

n.a. = not applicable; * = between -0.05 percent and 0.05 percent.

a. The revenues and outlays of the Social Security trust funds and the net cash flow of the Postal Service are classified as off-budget.

Table 1-2.

CBO's Baseline Projections of Outlays and Deficits, Adjusted to Exclude the Effects of Timing Shifts

	Actual, 2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
In Billions of Dollars												
Payments That Are Shifted in CBO's Baseline ^a	-44	0	0	0	62	5	-67	0	0	0	91	-91
Outlays Adjusted for Timing Shifts												
Mandatory	2,560	2,695	2,834	2,995	3,183	3,366	3,555	3,737	3,957	4,161	4,415	4,669
Discretionary	1,267	1,334	1,295	1,299	1,314	1,338	1,367	1,399	1,431	1,465	1,499	1,535
Net interest	325	383	460	521	581	637	684	724	772	821	876	928
Total	4,152	4,412	4,589	4,814	5,078	5,342	5,606	5,859	6,160	6,446	6,790	7,133
Deficit Adjusted for Timing Shifts	-823	-897	-903	-974	-1,066	-1,134	-1,158	-1,212	-1,204	-1,192	-1,344	-1,460
As a Percentage of Gross Domestic Product												
Outlays Adjusted for Timing Shifts												
Mandatory	12.6	12.7	12.8	13.1	13.4	13.6	13.9	14.0	14.3	14.5	14.8	15.1
Discretionary	6.3	6.3	5.9	5.7	5.5	5.4	5.3	5.2	5.2	5.1	5.0	5.0
Net interest	1.6	1.8	2.1	2.3	2.4	2.6	2.7	2.7	2.8	2.9	2.9	3.0
Total	20.5	20.8	20.7	21.0	21.4	21.7	21.9	22.0	22.3	22.4	22.7	23.0
Deficit Adjusted for Timing Shifts	-4.1	-4.2	-4.1	-4.2	-4.5	-4.6	-4.5	-4.5	-4.4	-4.1	-4.5	-4.7
Memorandum:												
Baseline Deficit												
In billions of dollars	-779	-897	-903	-974	-1,128	-1,139	-1,091	-1,212	-1,204	-1,192	-1,435	-1,370
As a percentage of gross domestic product	-3.8	-4.2	-4.1	-4.2	-4.7	-4.6	-4.3	-4.5	-4.4	-4.1	-4.8	-4.4

Source: Congressional Budget Office.

a. When October 1 (the first day of the fiscal year) falls on a weekend, certain payments that would have ordinarily been made on that day are instead made at the end of September and thus are shifted into the previous fiscal year. Those shifts primarily affect mandatory outlays; discretionary outlays are also affected, but to a much lesser degree. Net interest outlays are not affected.

- Discretionary outlays are also projected to rise, by 5 percent (or \$67 billion) this year, about the same rate of increase as last year; such outlays increased by less than 2 percent in both 2016 and 2017. The growth in discretionary outlays that occurred in 2018, and that is projected to occur in 2019, stems primarily from legislation enacted last year that raised the statutory caps on discretionary funding for those two years and from the subsequent increases in appropriations.

This year's deficit is projected to total 4.2 percent of GDP, only slightly above last year's level of 4.1 percent (after adjustments to exclude the effects of the 2018 timing shift). Revenues are expected to reach 16.5 percent of GDP in 2019, slightly above their level in 2018—but outlays are estimated to rise more as a percentage of GDP, from 20.5 percent in 2018 to 20.8 percent in 2019.

Deficits From 2020 to 2029

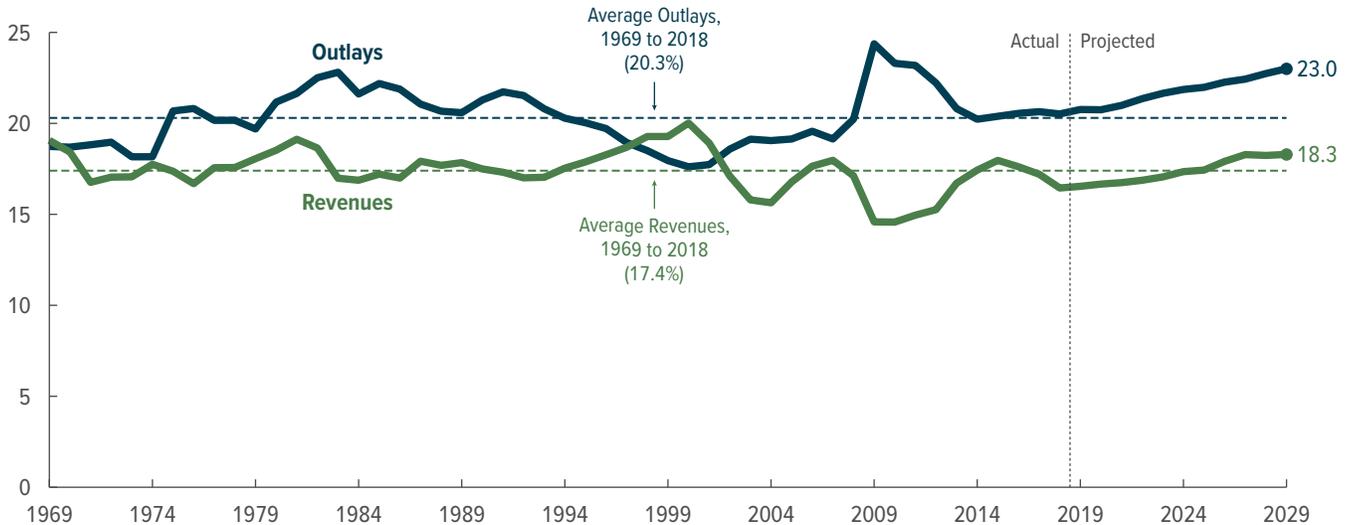
In CBO's baseline projections, the budget deficit (adjusted to exclude shifts in timing) remains near its 2019 level over the following two years before rising to 4.5 percent of GDP in 2022, after which it remains largely unchanged for the next several years. Both revenues and outlays increase at similar rates on average over that period.

Between 2025 and 2027 in CBO's baseline, deficits fall from 4.5 percent of GDP to 4.1 percent, primarily because projected revenues increase more rapidly as a number of provisions of the 2017 tax act expire. After 2027, growth in revenues slows while outlays increase steadily (see Figure 1-2). As a result, the deficit rises over the final two years of the projection period, reaching 4.7 percent of GDP (adjusted to exclude shifts in timing) in 2029. That percentage has been exceeded in only eight years since 1946; four of those years followed the 2007–2009 recession.

Figure 1-2.

Total Revenues and Outlays

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

When October 1 (the first day of the fiscal year) falls on a weekend, certain payments that would have ordinarily been made on that day are instead made at the end of September and thus are shifted into the previous fiscal year. All projections presented here have been adjusted to exclude the effects of those timing shifts. Historical amounts have been adjusted as far back as the available data will allow.

Deficits in CBO's baseline average 4.4 percent of GDP between 2020 and 2029, a period in which the unemployment rate is projected to remain below 5 percent. Until recently, deficits higher than 4 percent of GDP have been unprecedented in times of low unemployment. In the past 50 fiscal years, the unemployment rate has been below 6 percent in 27 years. During those years, the deficit averaged 1.5 percent of GDP (see Figure 1-3). In the 12 years that the unemployment rate was below 5 percent, deficits averaged 0.7 percent of GDP.

Growth of Revenues. Revenues are projected to grow from 16.5 percent of GDP in 2019 to 17.4 percent in 2025. Receipts from corporate income taxes are projected to grow from 1.2 percent to 1.6 percent of GDP over that period for two reasons. First, changes in tax rules that are scheduled to occur over the next decade would gradually boost receipts, on net. Second, weakness observed in corporate tax receipts over the past several years—beyond that which can be explained by currently available data on business activity—is expected to gradually dissipate. Individual income tax receipts are projected to rise from 8.3 percent of GDP in 2019 to

8.6 percent in 2025. The most significant source of that increase is continued economic growth, causing people's income, in the aggregate, to rise faster than the rate of inflation.

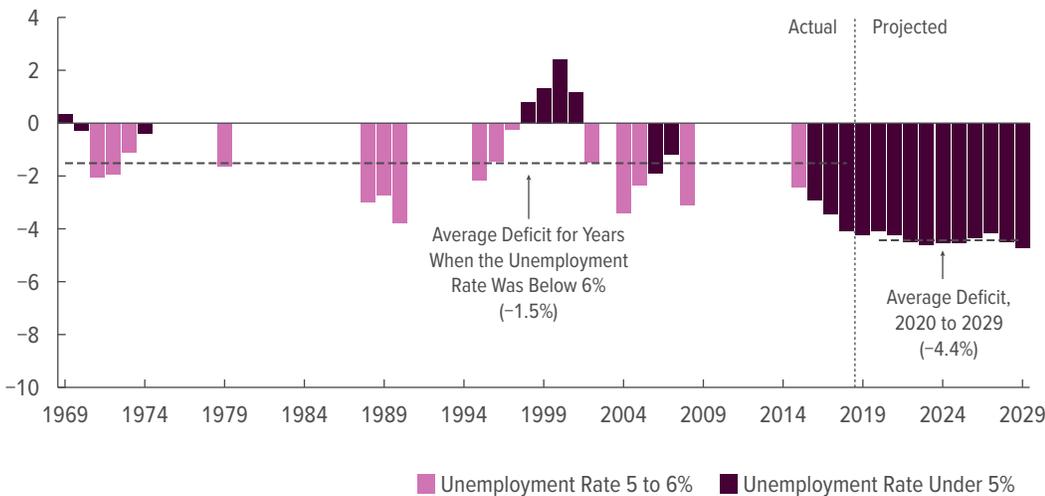
CBO projects that if current laws generally remained unchanged, revenues would grow more quickly toward the end of the projection period, increasing from 17.4 percent of GDP in 2025 to 18.3 percent in 2027 and remaining near that amount through 2029. Receipts from individual income taxes drive that growth, rising from 8.6 percent of GDP in 2025 to 9.6 percent in 2029. Most of the increase in individual income taxes results from the scheduled expiration, after tax year 2025, of nearly all the provisions of the 2017 tax act that affect individual income taxes. Those expirations would cause tax liabilities to rise in calendar year 2026, boosting receipts in 2026 and 2027. (For a more detailed discussion of CBO's revenue projections, see Chapter 4.)

Growth of Outlays. Total outlays are projected to rise over the coming decade, boosted by greater spending for interest costs and large benefit programs (see Figure 1-4).

Figure 1-3.

Baseline Deficits Compared With Deficits and Surpluses When the Unemployment Rate Has Been Relatively Low

Percentage of Gross Domestic Product



In 27 of the past 50 fiscal years, the unemployment rate has been below 6 percent. Deficits in those years averaged 1.5 percent of GDP. Although the unemployment rate remains below 5 percent between 2020 and 2029 in CBO's projections, deficits in those years average 4.4 percent of GDP.

Source: Congressional Budget Office.

The unemployment rate is the number of jobless people who are available for and seeking work, expressed as a percentage of the labor force.

When October 1 (the first day of the fiscal year) falls on a weekend, certain payments that would have ordinarily been made on that day are instead made at the end of September and thus are shifted into the previous fiscal year. All projections presented here have been adjusted to exclude the effects of those timing shifts. Historical amounts have been adjusted as far back as the available data will allow.

GDP = gross domestic product.

In the baseline, outlays (adjusted to exclude shifts in timing) rise from 20.8 percent of GDP in 2019 to 23.0 percent in 2029. Growth in outlays averages 5 percent a year between 2020 and 2029. Most of that growth stems from higher interest costs and increased spending for benefits for older people, which is concentrated in a few mandatory programs but also involves discretionary spending (see Box 1-1).

Net Interest. CBO estimates that, under current law, outlays for net interest will increase substantially, particularly over the next five years. In CBO's projections, interest rates rise rapidly over the next two years, and net interest outlays increase at an average annual rate of 14 percent between 2019 and 2023, more than double the average rate of increase projected for 2024 to 2029. The slower rate of increase in later years occurs primarily because interest rates under CBO's economic forecast are relatively flat over the second half of the projection

period. (For a more detailed discussion of CBO's economic projections, see Chapter 2.) Nevertheless, as federal debt continues to rise, net interest outlays in CBO's baseline increase from 2.7 percent of GDP in 2024 to 3.0 percent in 2029, well above the 1.8 percent projected for 2019.

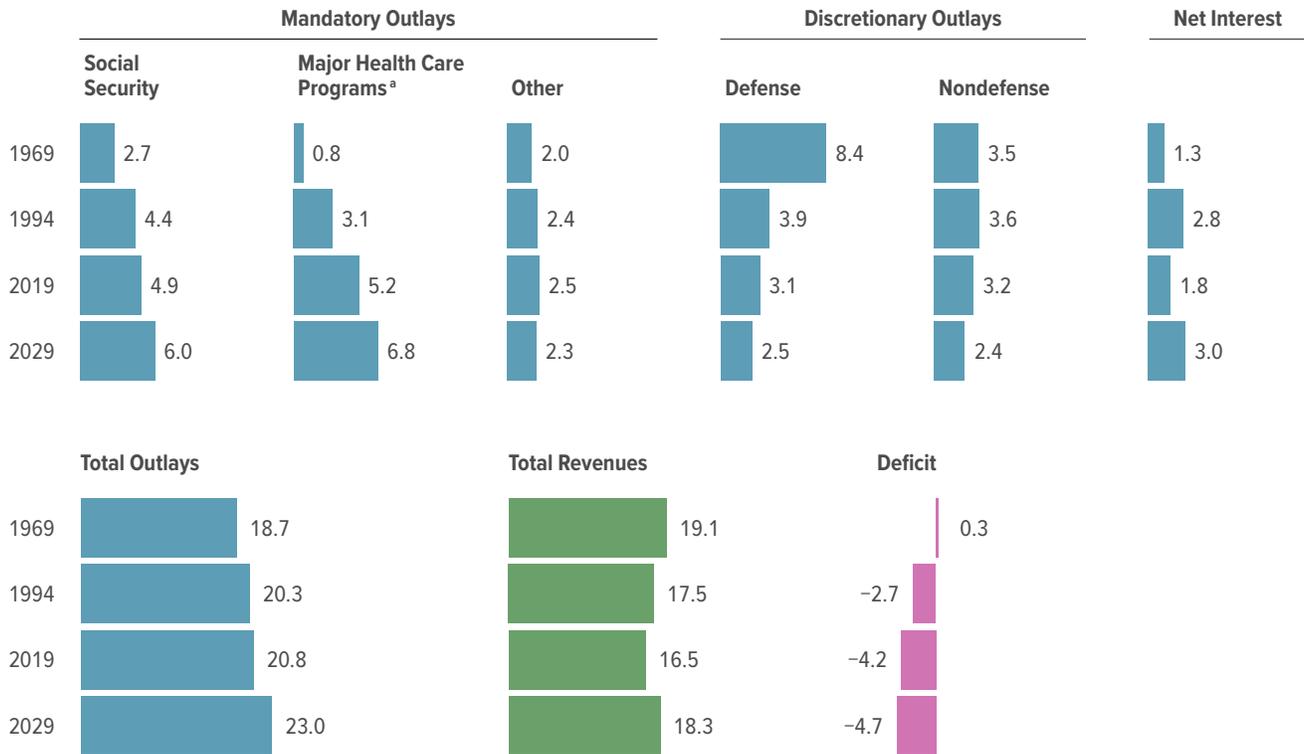
Mandatory Spending. Outlays for mandatory programs are projected to increase steadily over the coming decade, rising by 6 percent a year, on average. By 2029, those outlays (adjusted to exclude timing shifts) would total 15.1 percent of GDP, up from 12.7 percent in 2019. By comparison, the only other time mandatory outlays have exceeded 14.0 percent of GDP since 1962 was in 2009, during the most recent recession, when they totaled 14.5 percent.

Growth in spending for Social Security and Medicare (adjusted to exclude the effects of timing shifts) accounts

Figure 1-4.

CBO’s Baseline Projections of Outlays and Revenues, Compared With Actual Values 25 and 50 Years Ago

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

In 2028, October 1 (the first day of fiscal year 2029) falls on a weekend, so certain payments that are due on that date will instead be made in September, thus boosting outlays in fiscal year 2028 and reducing them in 2029. Such shifts affect projections of outlays for the major health care programs, other mandatory outlays, defense discretionary outlays, total outlays, and the deficit. A similar shift boosted outlays in those categories in 1994. The data presented here have been adjusted to exclude the effects of those timing shifts.

a. Consists of outlays for Medicare (net of premiums and other offsetting receipts), Medicaid, and the Children’s Health Insurance Program, as well as outlays to subsidize health insurance purchased through the marketplaces established under the Affordable Care Act and related spending.

for about three-quarters of the increase in mandatory spending over the 10-year period. The aging of the population and rising health care costs are key drivers of that growth in spending:

- The number of people age 65 or older is now more than twice what it was 50 years ago. Over the next decade, as members of the baby-boom generation age and as life expectancy continues to increase, that number is expected to rise by about one-third (see Figure 1-5 on page 14). As a result, spending for people age 65 or older in several large mandatory programs—particularly Social Security and Medicare—increases notably in CBO’s baseline.

- Health care costs per beneficiary are projected to grow faster than the economy over the long term, contributing to growth in spending for Medicare and Medicaid in particular.

In keeping with the rules established by the Deficit Control Act, baseline projections incorporate the assumption that some mandatory programs will be extended when their authorization expires, although the rules provide for different treatment of programs depending on when those programs were established. That act also requires that CBO’s baseline incorporate the assumption that scheduled payments from federal trust funds will continue to be made in full after a trust

Box 1-1.

Spending for People Age 65 or Older

As the U.S. population has aged, federal spending for people age 65 or older has grown significantly. In 2005, for example, spending directly allocable to the elderly accounted for about 35 percent of federal noninterest outlays.¹ That share rose to 40 percent in 2018, the Congressional Budget Office estimates, when total noninterest spending was about \$3.8 trillion.

Over the next decade, as members of the baby-boom generation age and as life expectancy increases, the number of people age 65 or older is expected to continue to rise—by about one-third, from 16 percent of the population in 2018 to 20 percent in 2029. As a result, federal spending for older people is anticipated to grow in the future, taking up a greater share of federal resources. In CBO’s baseline projections and under the assumption that discretionary spending on the elderly remains the same share of discretionary spending that it was in 2018, total spending dedicated to older Americans

rises to 50 percent of noninterest spending in 2029 (see figure). Outlays for that population would amount to 10.1 percent of gross domestic product (GDP) in 2029, compared with 6.0 percent in 2005.

Mandatory Spending for People Age 65 or Older

Almost all of the spending for people age 65 or older in the federal budget is for mandatory programs—that is, spending that is generally governed by statutory criteria and is not normally constrained by the annual appropriation process. Mandatory spending for the elderly amounted to roughly \$1.5 trillion in fiscal year 2018, CBO estimates, about 85 percent of which was for Social Security and Medicare.

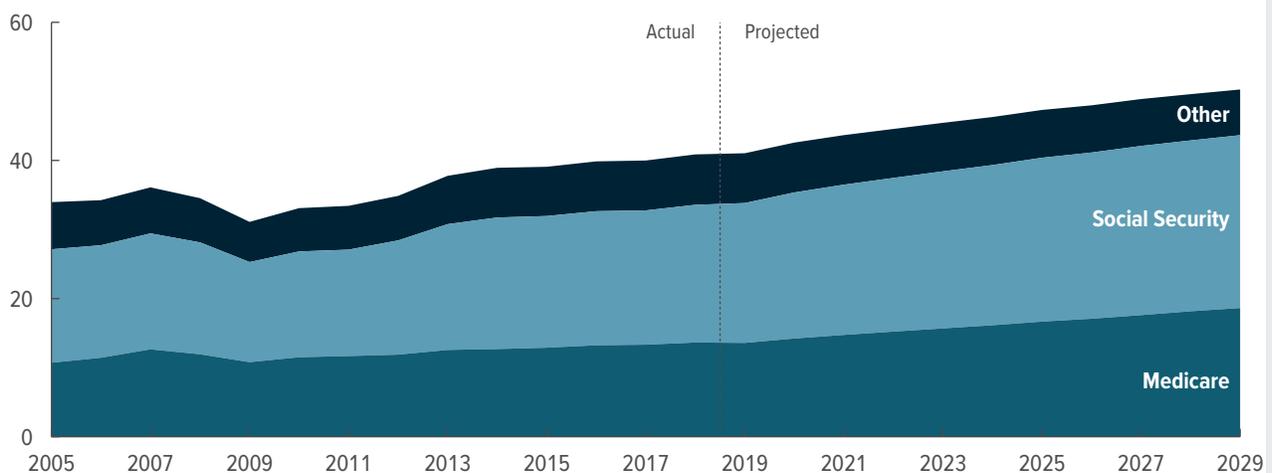
Mandatory spending that is directly allocable to the elderly has increased substantially both in dollar terms and as a share of the nation’s GDP since 2005, and it is projected to continue to increase over the next decade. As a share of GDP, mandatory spending for people age 65 or older grew from 5.8 percent in 2005 to 7.5 percent in 2018. Under current law, that share would grow to 9.8 percent in 2029, CBO projects.

Social Security and Medicare. Spending for Social Security and Medicare drives much of the growth in mandatory

1. For this calculation and others, CBO included spending on the elderly from Medicare, Social Security, and other programs for which such spending was projected to exceed \$5 billion in any year between 2019 and 2029. A relatively small amount of spending on the elderly occurred in programs below that threshold. All calculations reflect adjustments to eliminate the effects of shifts in the timing of certain payments.

Outlays for People Age 65 or Older as a Share of Total Noninterest Outlays

Percentage of Federal Noninterest Outlays



Source: Congressional Budget Office.

The figure includes outlays for Medicare, Social Security, basic military health care and pension benefits, additional health care and cash benefits available to veterans age 65 or older, health and pension benefits provided to federal civilian retirees, the Supplemental Nutrition Assistance Program, Medicaid, Supplemental Security Income, and various forms of housing assistance.

Continued

Box 1-1.

Continued

Spending for People Age 65 or Older

spending on the elderly. CBO projects that, under current law, spending for older Americans in those programs alone would increase from \$1.3 trillion in 2018 to \$2.7 trillion in 2029, accounting for over nine-tenths of the total increase in outlays for the elderly over that period. Factors driving that increase include the aging population and rising health care costs per person, in part because CBO projects that spending per enrollee in federal health care programs will grow more rapidly over the coming decade than it has in recent years.

Other Mandatory Programs. Mandatory spending for programs other than Medicare and Social Security is also expected to contribute to increases in spending on the elderly. Spending on older Americans in those other federal programs amounted to roughly \$225 billion in 2018 and, under current law, would grow to roughly \$340 billion by 2029, CBO projects. The bulk of those outlays—about \$160 billion in 2018—was deferred compensation in the form of pension and health benefits for retired military and civilian employees of the federal government as well as veterans' disability compensation and pensions. Most of the remainder of that spending provided government services; about \$50 billion in 2018 was for Medicaid benefits. Medicaid provides benefits to low-income people of all ages, but roughly 15 percent of federal spending for that program goes to nursing-home care and other services for people who are age 65 or older, CBO estimates.

The growing size of the elderly population contributes to the projected increase in outlays for some programs, such as Medicaid. Spending growth for certain other programs is driven by the aging of a specific subpopulation—spending on Vietnam-era veterans, for example, has risen as more of those veterans age past 65. Growth in spending on the elderly in health-related programs, such as the military's TRICARE for Life program, is driven by the per-person growth in medical costs as well as by growth in the elderly population.

Discretionary Spending for People Age 65 or Older

Discretionary spending for people age 65 or older, which is controlled by the Congress through annual appropriation acts, is much less than mandatory spending for people of those ages. In the discretionary programs that spent the most on people in that category, outlays for the elderly amounted to roughly \$50 billion in fiscal year 2018, about 4 percent of total discretionary spending. That amount was only about 4 percent of total spending for people age 65 or older. The discretionary

programs that provide the most benefits for the elderly include certain veterans' health care benefits and housing support for people with low income (regardless of their age). If such spending remained the same as a share of total discretionary spending through 2029, it would fall slightly relative to GDP under CBO's baseline projections.

Other Considerations

Federal spending for older Americans affects the nonelderly as well. The government's need to collect taxes and borrow money is directly affected by the amount it spends on the elderly. Yet federal spending on the elderly also provides benefits to other Americans. For example, such spending reduces the support that younger generations of people would otherwise provide to elderly friends and relatives. In addition, the expectation of future benefits from Social Security, Medicare, and other programs reduces the need for today's nonelderly to privately save for their future living expenses and health needs. To the extent that the relevant programs remain in place, younger generations will also benefit from those programs when they themselves are elderly.

A focus on *federal* spending overstates the fraction of all government spending that is directed to the elderly. Federal spending is heavily focused on the health and pension needs of the elderly and, by comparison, relatively little federal spending is directly targeted to the young. In contrast, state and local governments invest heavily in young people through, for example, the provision of free K–12 education, on which those governments spent roughly \$600 billion in 2018. State governments also spent roughly \$250 billion on Medicaid in 2018, most of which served people who were not elderly.

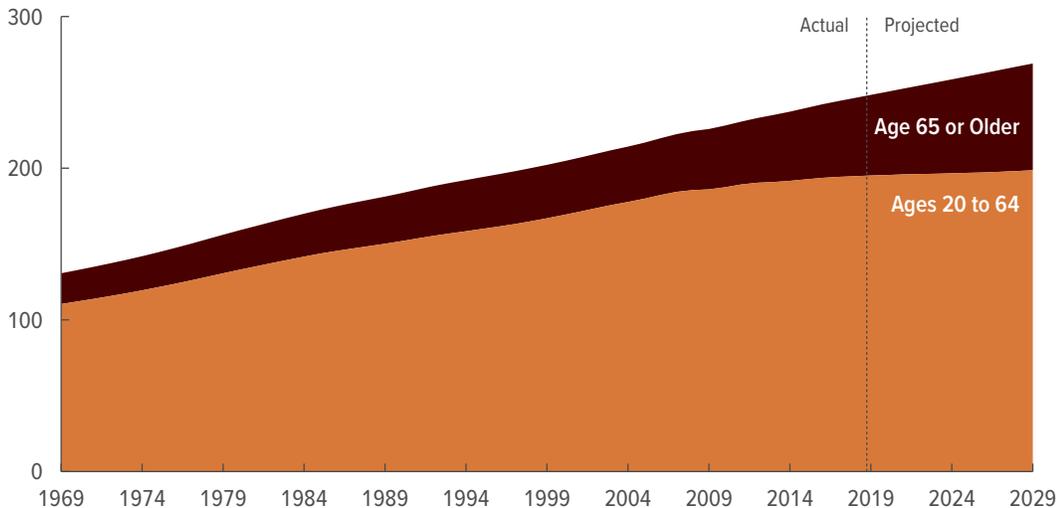
In addition to spending that can be directly attributed to particular age groups, the federal government spends money for some purposes that do not depend on beneficiaries' age. For instance, spending for national defense, infrastructure, and research and development benefits all Americans regardless of their age. Such outlays totaled more than \$1 trillion in 2018. Whether general spending is allocated to the elderly based on their proportion of the population or on their share of market income, about one-sixth of such spending can be attributed to people age 65 or older.²

2. For more information, see Congressional Budget Office, *The Distribution of Federal Spending and Taxes in 2006* (November 2013), p. 23, www.cbo.gov/publication/44698.

Figure 1-5.

Population, by Age Group

Millions of People



Enrollment in Social Security and Medicare is expected to rise as the number of people age 65 or older grows.

Source: Congressional Budget Office.

fund has been exhausted, although there is no legal authority to make such payments. (For a more detailed discussion of those rules, see Chapter 3.)

Discretionary Spending. CBO projects that, under current law, discretionary outlays would fall in dollar terms in 2020 as the statutory caps on discretionary funding drop after 2019. Discretionary outlays are projected to increase at an average annual rate of 2 percent over the remainder of the projection period, reflecting the assumption that funding will grow with inflation once those caps expire after 2021.⁴ Because that rate of growth is slower than the growth rate projected for the economy, such outlays continue falling in CBO's baseline as a percentage of GDP. In 2029, discretionary outlays (adjusted to exclude shifts in timing) are projected to total 5.0 percent of GDP, more than 1 percentage point below CBO's estimate of such outlays in 2019 and lower than at any point in the past 50 years.

4. In CBO's baseline projections, discretionary funding related to federal personnel is inflated using the employment cost index for wages and salaries of workers in private industry; other discretionary funding is adjusted using the gross domestic product price index.

Debt

Federal debt held by the public consists mostly of the securities that the Treasury issues to raise cash to fund the federal government's activities and to pay off its maturing liabilities.⁵ The Treasury borrows money from the public by selling securities in the capital markets; that debt is purchased by various buyers in the United States, by private investors overseas, and by the central banks of other countries. Of the \$15.8 trillion in federal debt held by the public at the end of 2018, 60 percent was held by domestic investors and 40 percent was held by foreign investors. The largest U.S. holders of Treasury debt as of June 30, 2018 (the most recently available data), are individual households (17 percent), the Federal Reserve (15 percent), and mutual funds (12 percent); investors in China and Japan have the largest foreign holdings of Treasury securities, together accounting for 14 percent of U.S. public debt (see Figure 1-6).⁶

Although federal debt held by the public is a common measure of federal debt, other measures are sometimes

5. A small amount of debt held by the public is issued by other agencies, mainly the Tennessee Valley Authority.

6. For additional information, see Congressional Budget Office, *Federal Debt and Interest Costs* (December 2010), Chapter 1, www.cbo.gov/publication/21960.

used for various purposes, such as to provide a more comprehensive picture of the government’s financial condition or to account for debt held by federal trust funds.

Debt Held by the Public

Under the assumptions that govern CBO’s baseline, the federal government is projected to borrow another \$13.0 trillion from the end of 2018 through 2029, boosting debt held by the public to almost \$29 trillion, or 93 percent of GDP, by the end of the projection period (see Table 1-3). That amount of debt relative to the size of the economy would be the greatest since 1947 and would be more than double the 50-year average of 42 percent.

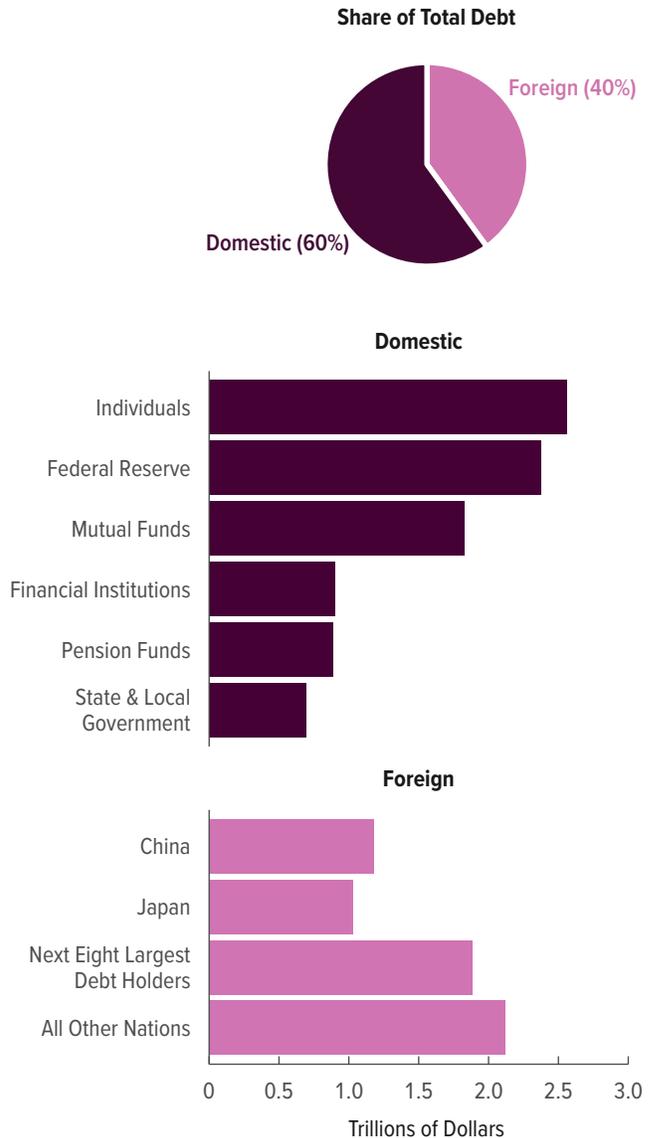
Consequences of Growing Debt. Such high and rising debt would have significant negative consequences, both for the economy and for the federal budget, including these:

- As interest rates continue to rise toward more typical levels, federal spending on interest payments would increase substantially;
- Because federal borrowing reduces national saving over time, the nation’s capital stock ultimately would be smaller, and productivity and total wages would be lower than would be the case if the debt was smaller;⁷
- Lawmakers would have less flexibility than otherwise to use tax and spending policies to respond to unexpected challenges; and
- The likelihood of a fiscal crisis in the United States would increase. Specifically, the risk would rise of investors’ being unwilling to finance the government’s borrowing unless they were compensated with very high interest rates. If that occurred, interest rates on federal debt would rise suddenly and sharply relative to rates of return on other assets.

7. National saving is total saving by all sectors of the economy: personal saving, business saving (corporate after-tax profits not paid as dividends), and government saving (budget surpluses). National saving represents all income not consumed, publicly or privately, during a given period. The nation’s capital stock consists of land and the stock of products set aside to support future production and consumption, including business inventories and fixed capital (residential and nonresidential structures, producers’ durable equipment, and intellectual property products, such as software).

Figure 1-6.

Domestic and Foreign Holders of Treasury Debt, 2018



Sources: Congressional Budget Office; Department of the Treasury.

Relationship Between Debt and Deficits. The net amount the Treasury borrows by selling securities (the amounts that are sold minus the amounts that have matured) is determined primarily by the annual budget deficit. The cumulative deficit is projected to total \$11.6 trillion over the 2020–2029 period. However, several other factors—collectively labeled “other means of financing” and not directly included in budget

Table 1-3.

CBO's Baseline Projections of Federal Debt

Billions of Dollars

	Actual, 2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Debt Held by the Public at the Beginning of the Year	14,667	15,751	16,636	17,601	18,626	19,795	20,976	22,112	23,372	24,625	25,866	27,338
Changes in Debt Held by the Public												
Deficit	779	897	903	974	1,128	1,139	1,091	1,212	1,204	1,192	1,435	1,370
Other means of financing	305	-12	62	51	42	42	45	47	49	49	37	32
Total	1,084	885	965	1,024	1,169	1,181	1,136	1,260	1,253	1,241	1,472	1,401
Debt Held by the Public at the End of the Year												
In billions of dollars	15,751	16,636	17,601	18,626	19,795	20,976	22,112	23,372	24,625	25,866	27,338	28,739
As a percentage of GDP	77.8	78.3	79.6	81.2	83.2	85.0	86.2	87.7	89.0	90.0	91.5	92.7
Memorandum:												
Debt Held by the Public Minus Financial Assets ^a												
In billions of dollars	13,976	14,874	15,777	16,751	17,878	19,017	20,108	21,321	22,525	23,717	25,152	26,522
As a percentage of GDP	69.1	70.0	71.3	73.0	75.2	77.1	78.4	80.0	81.4	82.5	84.2	85.5
Gross Federal Debt ^b	21,461	22,465	23,522	24,598	25,759	26,922	28,020	29,175	30,331	31,351	32,558	33,657
Debt Subject to Limit ^c	21,475	22,480	23,538	24,615	25,777	26,941	28,040	29,196	30,353	31,374	32,581	33,681
Average Interest Rate on Debt Held by the Public (Percent)	2.4	2.6	2.9	3.1	3.2	3.3	3.4	3.4	3.4	3.4	3.5	3.5

Source: Congressional Budget Office.

GDP = gross domestic product.

- Debt held by the public minus the value of outstanding student loans and other credit transactions, cash balances, and various financial instruments.
- Federal debt held by the public plus Treasury securities held by federal trust funds and other government accounts.
- The amount of federal debt that is subject to the overall limit set in law. Debt subject to limit differs from gross federal debt mainly in that it excludes most debt issued by agencies other than the Treasury and the Federal Financing Bank and includes certain other adjustments that are excluded from gross debt. That limit was most recently set at \$20.5 trillion but has been suspended through March 1, 2019. On March 2, 2019, the debt limit will be raised to its previous level plus the amount of federal borrowing that occurred while the limit was suspended.

totals—also affect the government's need to borrow from the public. Those factors include the cash flows associated with federal credit programs such as student loans (because only the subsidy costs of those programs are reflected in the budget deficit), as well as changes in the government's cash balances. As a result of that additional borrowing, CBO projects, the increase in debt held by the public would exceed the cumulative deficit by about \$450 billion.

Specifically, the government's need for cash to finance new student loans and other credit programs would, on net, boost debt by about \$385 billion over the projection

period, CBO estimates. The subsidy costs for those credit programs are included in the projected deficit for each year from 2020 to 2029. However, the cash outlays needed to finance those programs each year—for example, the outlays needed to lend students the sums they will gradually repay—are greater than the net subsidy costs. (For more information on CBO's treatment of credit programs, see the section titled "Other Mandatory Programs" in Chapter 3.) As a result, CBO estimates, the government would need to borrow between \$26 billion and \$44 billion more per year during that period than the budget deficits would suggest.

In addition, CBO estimates that the Treasury will boost its cash balances by about \$70 billion between 2020 and 2029. All told, CBO projects that cumulative borrowing would total about \$12.1 trillion over the period.

Other Measures of Debt

Three other measures are sometimes used in reference to federal debt:

- *Debt held by the public minus financial assets* subtracts from debt held by the public the value of the government's financial assets, such as student loans. That measure provides a more comprehensive picture of the government's financial condition and its overall effect on credit markets than does debt held by the public. Calculating that measure is not straightforward, however, because neither the financial assets that are included nor the methods for evaluating them are clearly defined. Under CBO's baseline assumptions, that measure is about 10 percent smaller than debt alone but varies roughly in line with it.
- *Gross federal debt* consists of debt held by the public and debt held by government accounts (for example, the Social Security trust funds). The latter type of debt does not directly affect the economy and has no net effect on the budget. In CBO's projections, while debt held by the public increases by \$12.1 trillion between the end of 2019 and the end of 2029, debt held by government accounts falls by \$0.9 trillion, reflecting declines in the balances of many trust funds.⁸ (For a more detailed discussion about those trust funds, see Appendix D.) As a result, gross federal debt is projected to rise by \$11.2 trillion over that period and to total \$33.7 trillion at the end of 2029. About 15 percent of that sum would be debt held by government accounts.
- *Debt subject to limit* is the amount of debt that is subject to the statutory limit on federal borrowing; it differs from gross federal debt mainly in that it excludes most debt issued by agencies other than the Treasury and the Federal Financing Bank and includes certain other adjustments that are

excluded from gross debt.⁹ Currently, there is no statutory limit on the issuance of new federal debt because the Bipartisan Budget Act of 2018 (P. L. 115-123) suspended the debt ceiling from February 9, 2018, through March 1, 2019. In the absence of any legislative action on the debt limit before the suspension ends, the amount of borrowing accumulated during that period will be added to the previous debt limit of \$20.5 trillion on March 2, 2019.¹⁰ In CBO's baseline projections, the amount of outstanding debt subject to limit increases from \$22.5 trillion at the end of 2019 to \$33.7 trillion at the end of 2029. (For the purpose of those projections, CBO assumes that increases in the statutory ceiling will occur as necessary.)

Uncertainty in Budget Projections

Even if federal laws remained unchanged for the next decade, actual budgetary outcomes would differ from CBO's baseline projections because of unanticipated changes in economic conditions and in a host of other factors that affect federal spending and revenues. The agency aims for its projections to be in the middle of the distribution of possible outcomes, given the baseline assumptions about federal tax and spending policies, while recognizing that actual outcomes will typically differ to some degree from any such projections.

CBO's projections of outlays and revenues and therefore of deficits and debt depend in part on the agency's economic projections for the coming decade, which include forecasts for such variables as interest rates, inflation, and the growth in productivity. Discrepancies between those forecasts and actual economic outcomes can cause significant differences between baseline budget projections and budgetary outcomes. (For further discussion of how some key economic projections affect budget projections, see Appendix B.) The potential for such discrepancies in

8. In keeping with the rules in section 257 of the Deficit Control Act, CBO's baseline incorporates the assumption that scheduled payments will continue to be made in full after a trust fund has been exhausted, even though there is no legal authority to make such payments.

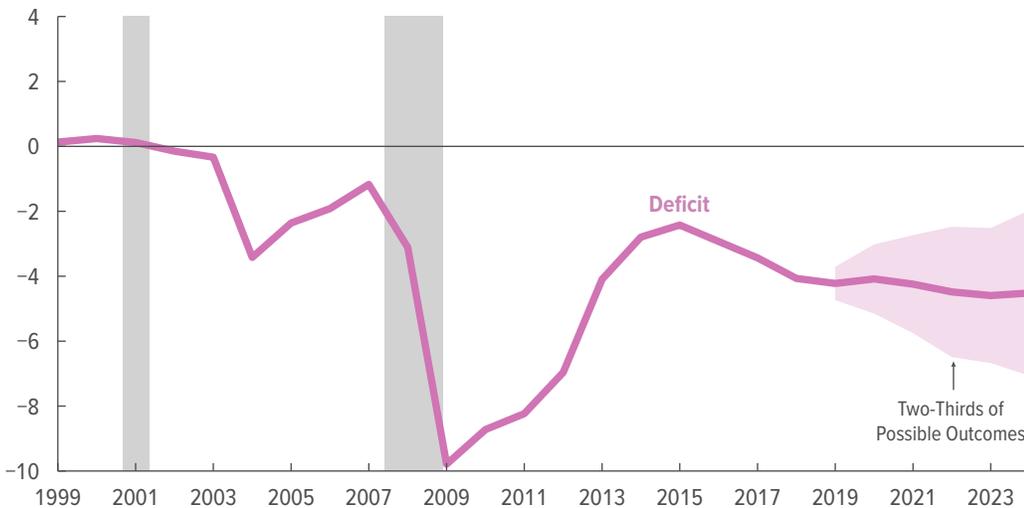
9. The Federal Financing Bank, a government corporation under the general supervision of the Treasury, assists federal agencies in managing their borrowing and lending programs. It can issue up to \$15 billion of its own debt securities, and that amount does not count against the debt limit.

10. If the current suspension is not extended and a higher debt limit is not specified in law before March 2, 2019, the Treasury will have no room to borrow under standard borrowing procedures beginning on that date. To avoid a breach in the debt ceiling, the Treasury would begin employing so-called extraordinary measures to allow continued borrowing for a few months.

Figure 1-7.

The Uncertainty of CBO's Baseline Projections of the Budget Deficit

Percentage of Gross Domestic Product



CBO estimates that there is a roughly two-thirds chance that by 2024, the deficit as a share of gross domestic product would be 2.6 percentage points smaller or larger than the agency projects.

Source: Congressional Budget Office.

The shaded area around CBO's baseline deficit projection, which encompasses two-thirds of possible outcomes, is based on the errors in CBO's one-, two-, three-, four-, five-, and six-year projections of the deficit for fiscal years 1984 through 2017.

Actual outcomes will be affected by legislation enacted in future years. The effects of future legislation are not reflected in this figure.

other inputs into the baseline also contributes to uncertainty about CBO's projections.

Historical experience gives some indication of the magnitude of the uncertainty of these projections. The average absolute error of CBO's deficit projection for the second year of its baseline (often referred to as the budget year) was 1.0 percent of GDP between 1985 and 2017. (That calculation excludes the effects of legislation enacted after CBO completed its projections.) If CBO's deficit projection for 2020 had an error equal to that average absolute error, the deficit would be larger or smaller than the agency estimates by about \$220 billion. The sixth-year projections of deficits are, as expected, less accurate than the budget-year projections. For CBO's sixth-year projections made for the years 1989 to 2017, the average absolute error was 2.0 percent of GDP. An equivalent error in the current deficit projection of \$1.2 trillion (adjusted to exclude timing shifts) for 2024 would cause the deficit in that year to be larger or smaller than what the agency projects by \$510 billion.

To help illustrate the uncertainty surrounding CBO's baseline projections, Figure 1-7 displays a range of likely

outcomes for the deficit through 2024, assuming that current law does not change. In CBO's baseline, the deficit equals 4.1 percent of GDP in 2020 and 4.5 percent in 2024. Based on the analysis of its past projections, CBO estimates that there is approximately a two-thirds chance that the deficit under current law would be between 3.0 percent and 5.2 percent of GDP in 2020. For 2024, the range is larger: CBO estimates that there is approximately a two-thirds chance that the deficit would be between 2.0 percent and 7.1 percent of GDP.

For CBO's debt projections, estimates of the sixth year of a baseline have been much less accurate than budget-year estimates. Between 1985 and 2017, the average absolute error in budget-year projections of debt held by the public was 1.8 percent of GDP, but the average absolute error in sixth-year projections was 7.4 percent of GDP. That larger error occurs because errors in the projections of debt tend to compound over time, thereby increasing the uncertainty surrounding those projections. For example, in CBO's baseline, federal debt is projected to equal 86 percent of GDP in 2024. Based on the analysis of its past projections, CBO estimates that there is approximately a two-thirds chance that federal debt under

Table 1-4.

Key Projections in CBO's Extended Baseline

Percentage of Gross Domestic Product

	2019	2020	Projected Annual Average			
			2021–2024	2025–2029	2030–2039	2040–2049
Revenues						
Individual income taxes	8.3	8.3	8.4	9.3	9.9	10.5
Payroll taxes	5.8	5.8	5.8	5.9	5.9	5.8
Corporate income taxes	1.2	1.2	1.4	1.5	1.3	1.3
Other	1.3	1.3	1.3	1.4	1.5	1.7
Total Revenues	16.5	16.7	17.0	18.0	18.6	19.3
Outlays						
Mandatory						
Social Security	4.9	5.0	5.3	5.8	6.2	6.3
Major health care programs ^a	5.2	5.3	5.7	6.4	7.6	8.9
Other	2.6	2.6	2.5	2.4	2.2	2.1
Subtotal	12.7	12.8	13.5	14.5	16.0	17.3
Discretionary	6.3	5.9	5.5	5.1	5.0	5.0
Net interest	1.8	2.1	2.5	2.9	3.6	5.2
Total Outlays	20.8	20.7	21.5	22.5	24.6	27.5
Deficit	-4.2	-4.1	-4.5	-4.5	-6.0	-8.2
Debt Held by the Public at the End of the Period	78	80	86	93	114*	147*
Memorandum:						
Social Security						
Revenues ^b	4.4	4.4	4.5	4.5	4.5	4.4
Outlays ^c	4.9	5.0	5.3	5.8	6.2	6.3
Contribution to the Federal Deficit ^d	-0.5	-0.6	-0.8	-1.3	-1.7	-1.9
Medicare						
Revenues ^b	1.4	1.4	1.5	1.5	1.5	1.5
Outlays ^c	3.6	3.7	4.1	4.8	5.9	7.0
Offsetting receipts	-0.6	-0.7	-0.7	-0.9	-1.1	-1.3
Contribution to the Federal Deficit ^d	-1.6	-1.6	-1.9	-2.4	-3.3	-4.2
Gross Domestic Product at the End of the Period (Trillions of dollars)	21.3	22.1	25.6	31.0	45.8*	67.5*

Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2029 and then extending most of the concepts underlying those baseline projections for the rest of the long-term period (in this case, through 2049).

This table satisfies a requirement specified in section 3111 of S. Con. Res. 11, the Concurrent Resolution on the Budget for Fiscal Year 2016.

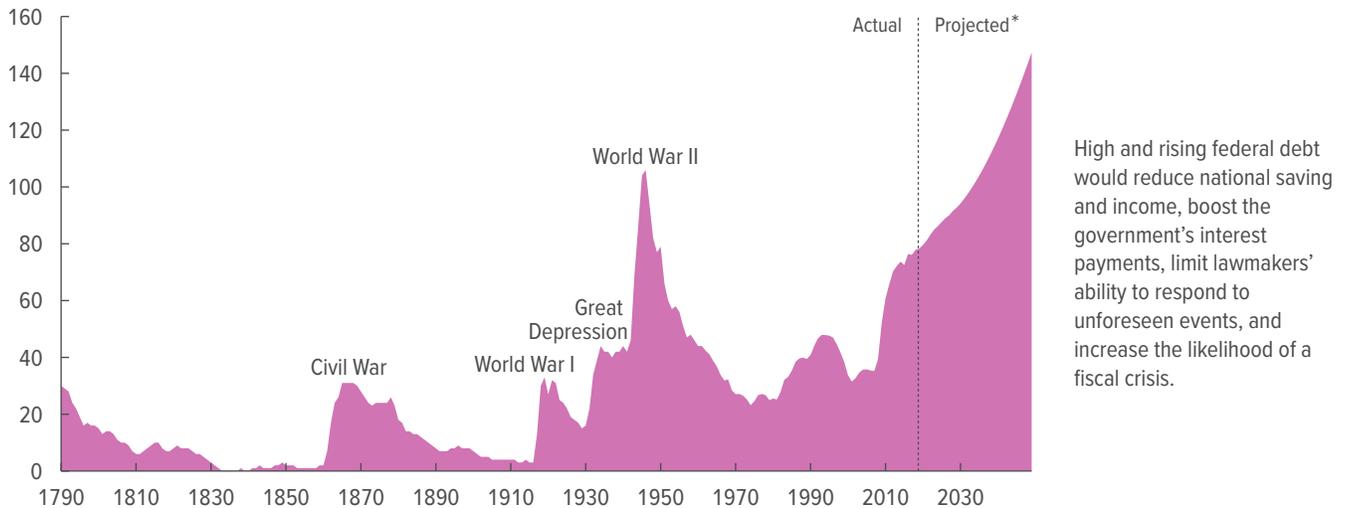
- Consists of outlays for Medicare (net of premiums and other offsetting receipts), Medicaid, and the Children's Health Insurance Program, as well as outlays to subsidize health insurance purchased through the marketplaces established under the Affordable Care Act and related spending.
- Includes payroll taxes other than those paid by the federal government on behalf of its employees; those payments are intragovernmental transactions. Also includes income taxes paid on Social Security benefits, which are credited to the trust funds.
- Does not include outlays related to administration of the program, which are discretionary. For Social Security, outlays do not include intragovernmental offsetting receipts stemming from the employer's share of payroll taxes paid to the Social Security trust funds by federal agencies on behalf of their employees.
- The net increase in the deficit shown in this table differs from the change in the trust fund balance for the associated program. It does not include intragovernmental transactions, interest earned on balances, or outlays related to administration of the program.

[*Values corrected on March 6, 2019]

Figure 1-8.

Federal Debt Held by the Public

Percentage of Gross Domestic Product



Source: Congressional Budget Office.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2029 and then extending most of the concepts underlying those baseline projections for the rest of the long-term period (in this case, through 2049).

current law would be between 76 percent and 96 percent of GDP in that year.

The Long-Term Outlook for the Budget

Beyond the coming decade, the fiscal outlook is significantly more challenging. In CBO's most recent long-term projections, which extend through 2049, budget deficits rise steadily. Those long-term projections follow CBO's 10-year baseline projections for the coming decade and then extend the baseline concept for subsequent years (see Table 1-4).¹¹ Although long-term budget

projections are highly uncertain, the aging of the population and growth in per capita spending on health care would almost certainly boost federal outlays significantly relative to GDP after 2029 if current laws generally remained in effect. Federal revenues also would continue to increase relative to GDP under current law, but they would not keep pace with outlays. As a result, CBO estimates that public debt would reach 147 percent of GDP by 2049 (taking into account the effects on the economy of the rising debt), higher than any percentage previously recorded in the United States (see Figure 1-8).*

Moreover, debt is on track to grow even larger after 2049. To avoid the negative consequences of large and growing federal debt and to put debt on a sustainable path, lawmakers will have to make significant changes to tax and spending policies—increasing revenues more than they would under current law, reducing spending for large benefit programs below the projected amounts, or adopting some combination of those approaches.

11. The long-term projections reported here incorporate the current baseline for the first 10 years of the projection period. For subsequent periods, CBO has not fully updated its projections from the most recent long-term budget outlook (See Congressional Budget Office, *The 2018 Long-Term Budget Outlook* (June 2018), www.cbo.gov/publication/53919). However, the agency has updated its long-term economic projections on an interim basis and applied them to estimates for net interest. For other components of the budget, CBO adopted the simplified approach that it has regularly used between full updates—in this case, by incorporating the growth rates for such components from the extended baseline in its 2018 long-term budget outlook. Details on the long-term economic and budgetary projections presented here are included with the

supplemental data for this report, available online at www.cbo.gov/publication/54918. CBO expects to publish the next long-term budget outlook in the spring of 2019.

[*Values corrected on March 6, 2019]