2017 tax act.) Federal outlays, adjusted to exclude shifts in the timing of certain payments, are projected to climb from 21.0 percent of GDP in 2020 to 23.0 percent in 2029 (see Figure 1-2).

Deficits are projected to average 4.7 percent of GDP over the 2020–2029 period. Over the past 50 years, deficits have averaged 2.9 percent of GDP; and in years when the unemployment rate has been below 6 percent, deficits averaged just 1.5 percent of GDP.

Primary deficits—that is, deficits excluding net outlays for interest—are projected to decrease over time, averaging 2.7 percent of GDP from 2020 through 2024 and 2.2 percent from 2025 through 2029. At the same time, because of projected increases in interest rates and federal borrowing, net interest outlays grow steadily, from 1.8 percent of GDP in 2020 to 2.6 percent in 2029 (see Figure 1-3 on page 14).

Those deficits are projected to boost federal debt held by the public, which consists mostly of the securities that the Treasury issues to raise cash to fund federal activities and pay off the government’s maturing liabilities. The net amount that the Treasury borrows by issuing those securities (calculated as the amounts that are sold minus the amounts that have matured) is influenced primarily by the annual budget deficit.

Consequently, under current law, debt held by the public would increase in upcoming years. In CBO’s baseline, after accounting for all of the government’s borrowing needs, debt held by the public rises from $17.8 trillion at the end of 2020 to $29.3 trillion at the end of 2029 (see Table 1-3 on page 15). As a percentage of GDP, that debt would increase from 79 percent in 2019 to 95 percent by the end of the projection period (see Figure 1-4 on page 16). At that point, such debt would be the largest since 1946 and more than twice the 50-year average.

**Outlays**

Over the coming decade, CBO projects, federal outlays would grow at an average annual rate of 5 percent, reaching $7.1 trillion in 2029 (adjusted to exclude the effects of timing shifts). Outlays for Social Security, Medicare, and net interest account for about two-thirds of that $2.7 trillion increase.
Figure 1-8.

Federal Debt Held by the Public

Percentage of Gross Domestic Product

High and rising federal debt would reduce national saving and income in the long term; increase the government's interest payments, thereby putting more pressure on the rest of the budget; limit lawmakers' ability to respond to unforeseen events; and increase the likelihood of a fiscal crisis.

Source: Congressional Budget Office. For details about the sources of data used for past debt held by the public, see Congressional Budget Office, Historical Data on Federal Debt Held by the Public (July 2010), www.cbo.gov/publication/21728.

The extended baseline generally reflects current law, following CBO's 10-year baseline budget projections through 2027 and then extending most of the concepts underlying those baseline projections for the rest of the long-term projection period (in this case, through 2047).
Application: Efforts to Control the Deficit

Controlling the budget is a difficult process.

- The Balanced Budget and Emergency Control Act (also known as the Gramm-Rudman-Hollings Deficit Reduction Act, or GRH).
  - Passed in 1985 in an attempt to control the budget.
  - Initiated automatic spending cuts once the budget deficit started missing specified targets.
  - The cuts were avoided by gimmicks, such as changing the targets.
Failure to meet GRH deficit targets led to the 1990 adoption of the Budget Enforcement Act (BEA):

- Rather than trying to target a deficit *level*, the BEA aimed to restrain government *growth*.
- It created the pay-as-you-go process (PAYGO), which prohibited any policy from increasing the *estimated* deficit in the next six-year period.
- If deficits increase, the President must issue a *sequestration requirement*, which reduces direct spending by a fixed percentage.
- Apparently successful in reducing spending.
Application: Efforts to Control the Deficit

PAYGO expired on September 30, 2002, and has not been renewed.

• President Bush proposed renewing PAYGO in 2004...
  o ... but not before passing a budget that cut taxes and increased spending.

• President Obama has publicly supported PAYGO legislation...
  o ... but his proposed budget would increase deficits to almost $2 trillion in the near term.
4.3 Projected versus Actual Surplus/Deficit

- Projected surplus/deficit 5 years previous
- Actual surplus/deficit

- $546.8 billion deficit in 2000


Billions of dollars
4.3

APPLICATION: The Financial Shenanigans of 2001

- The bill itself contained numerous tax cuts operating on erratic schedules.
- Many of the cuts would phase in over periods longer than in any prior American legislation, backloading most of the fiscal impact toward 2010.
- Convoluted scheduling allowed legislators to claim action had been taken on a wide range of issues, while delaying the fiscal consequences associated with these actions.
Capital Market Equilibrium

Price of capital (Interest rate), $r$

Supply of savings, $S_1$

Demand for capital, $D_1$

Quantity of capital, $K$

$r_1$, $r_2$

$K_1$, $K_2$
Figure 4.7. Public wealth in the United States, 1770-2010

Public debt is worth 1 year of national income in the U.S. in 1950 (almost as much as assets)

Sources and series: see piketty.pse.ens.fr/capital21c

Source: Piketty (2014)
roughly double when measured as a percentage of GDP. In contrast, discretionary spending in the projections declines in relation to the size of the economy.

**Deficits Are Projected to Be Larger Than CBO Previously Estimated**

The deficit that CBO now estimates for 2018 is $242 billion larger than the one that it projected for that year in June 2017. Accounting for most of that difference is a $194 billion reduction in projected revenues, mainly because the 2017 tax act is expected to reduce collections of individual and corporate income taxes.

For the 2018–2027 period, CBO now projects a cumulative deficit that is $1.6 trillion larger than the $10.1 trillion that the agency anticipated in June. Projected revenues are lower by $1.0 trillion, and projected outlays are higher by $0.5 trillion.

Laws enacted since June 2017—above all, the three mentioned above—are estimated to make deficits $2.7 trillion larger than previously projected between 2018 and 2027, an effect that results from reducing revenues by $1.7 trillion (or 4 percent) and increasing outlays by $1.0 trillion (or 2 percent). The reduction in projected revenues stems primarily from the lower individual income tax rates that the tax act has put in place for much of the period. Projected outlays are higher mostly because the other two pieces of legislation will increase discretionary spending. Those revenue reductions and spending increases would result in larger deficits and thus in higher interest costs than CBO previously projected.

In contrast, revisions to CBO’s economic projections caused the agency to reduce its estimate of the cumulative deficit by $1.0 trillion. Expectations of faster growth in the economy and in wages and corporate profits led to an increase of $1.1 trillion in projected tax receipts from all sources. Other changes had relatively small net effects on the projections.

**Debt Held by the Public Is Projected to Approach 100 Percent of GDP**

As deficits accumulate in CBO’s projections, debt held by the public rises from 78 percent of GDP (or $16 trillion) at the end of 2018 to 96 percent of GDP (or $29 trillion) by 2028. That percentage would be the largest since 1946 and well more than twice the average over the past five decades (see Summary Figure 2).

Such high and rising debt would have serious negative consequences for the budget and the nation:

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2. Those estimates generally reflect the budgetary effects reported in CBO’s cost estimates at the time the new laws were enacted and do not include the budgetary effects of information that has become available in recent months about the 2017 tax act. Those adjustments are classified as technical updates.
CBO projects that economic activity will expand at a pace this year and next that will lower the unemployment rate and place upward pressure on inflation and interest rates.

**Source:** Congressional Budget Office, using data from the Bureau of Economic Analysis, the Bureau of Labor Statistics, and the Federal Reserve.

Real GDP is the output of the economy adjusted to remove the effects of inflation. The unemployment rate is a measure of the number of jobless people who are available for work and are actively seeking jobs, expressed as a percentage of the labor force. The overall inflation rate is based on the price index for personal consumption expenditures; the core rate excludes prices for food and energy.

For real GDP growth and inflation, percentage changes are measured from the fourth quarter of one calendar year to the fourth quarter of the next. For the unemployment and interest rates, data are fourth-quarter values.

**GDP** = gross domestic product.
The Deficit in 2018

CBO estimates that, under current law, the budget deficit in 2018 will be $804 billion, $139 billion more than the shortfall last year. That increase would be even larger if not for shifts in the timing of certain payments. The 2018 deficit will be 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.\(^2\) For 2017, the net effect of those timing shifts and of similar shifts in spending from fiscal year 2017 into fiscal year 2016 was to increase outlays by $3 billion. If not for those shifts, the estimated deficit in 2018 would have been $186 billion more than last year’s shortfall, climbing from $662 billion in 2017 to $848 billion this year.

CBO projects that, under current law, revenues—which rose by 1.5 percent in 2017—will increase by only 0.6 percent (or $21 billion) this year, to $3.3 trillion. The main reason for the smaller increase is the effect of Public Law 115-97 (referred to here as the 2017 tax act), which, on net, will reduce revenues by an estimated $144 billion (or 0.7 percent of GDP) in 2018.

Outlays (adjusted to exclude the effects of the timing shifts)—which rose by 4.4 percent in 2017—will increase by 5.2 percent (or $208 billion) this year, to $4.2 trillion, CBO estimates. All three major components of spending contribute to that increase:

- Net outlays for interest are anticipated to jump from $263 billion in 2017 to $316 billion in 2018, an increase of 20 percent (or $53 billion). Higher interest rates this year account for most of that change.

- Discretionary outlays are expected to rise by 7 percent (or $84 billion) this year, significantly faster than the 2 percent increase in 2017 and the fastest rate of increase since 2010. The rapid growth projected for discretionary outlays stems primarily from recently enacted legislation.

- Mandatory spending is expected to increase by almost 3 percent (or $71 billion) in 2018, to $2.6 trillion. That rate of growth, which occurs for many different reasons, is roughly half the rate of increase recorded for such outlays in 2017.

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\(^2\) 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 year 2024.
### Table 1-1.

#### CBO's Baseline Budget Projections, by Category

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Source: Congressional Budget Office.

n.a. = not applicable; * = between zero 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.

[** Values corrected on September 24, 2019]
Figure 1-6.

Population, by Age Group

The number of people age 65 or older in the United States—now more than twice what it was 50 years ago—is expected to grow by more than one-third over the next 10 years. Thus, enrollment in Social Security’s Old-Age and Survivors Insurance program and Medicare will continue to rise.

Source: Congressional Budget Office.

This figure shows actual data through calendar year 2014, the most recent year for which such data are available.

Through 2021, CBO’s baseline incorporates the caps on budget authority for discretionary programs that are currently in place; in later years, the baseline reflects the assumption that such funding keeps pace with inflation (consistent with the provisions of Section 257 of the Deficit Control Act). Some elements of discretionary funding are not constrained by the caps and are generally assumed to grow with inflation from the amounts provided in 2017: the appropriations designated for overseas contingency operations; activities designated as emergency requirements; disaster relief (up to certain limits); certain efforts to reduce overpayments in benefit programs; and programs designated in the 21st Century Cures Act (P.L. 114-255), subject to the limits set in that legislation.25

For 2018, the caps on discretionary budget authority are $5 billion lower than for 2017—$3 billion lower for nondefense programs and $2 billion lower for defense programs.26 (That estimate incorporates the automatic reductions required by law and excludes adjustments for overseas contingency operations and other activities not constrained by the caps.) However, the changes in budget authority relative to 2017 incorporated in the baseline differ from the changes in the cap levels for two main reasons:

- Discretionary budget authority for nondefense programs declines by $24 billion in 2018; much of that decline—$17 billion—stems from reductions in mandatory budget authority that are included in the current continuing resolution for 2017 to help keep appropriations within the limit set by the cap on nondefense funding. (When reductions in mandatory programs are included in appropriation acts, the savings are credited against the discretionary funding provided in those acts in judging compliance with the caps.) Over the past six years, such offsets to discretionary budget authority have averaged about $18 billion a year; none have yet been included in CBO’s baseline for 2018 because no such changes have been enacted for that year. Without such offsets, discretionary budget authority in 2018 would have to be noticeably lower than the funding in 2017 in order to comply with the caps.

- Budget authority for defense programs is $2 billion greater in 2018 than in 2017 largely because funding for overseas contingency operations is assumed to grow from this year’s amount at the rate of inflation.

25. Spending for certain transportation programs is controlled by obligation limitations, which also are not constrained by the caps on discretionary spending.

26. The Bipartisan Budget Act of 2015 (P.L. 114-74) canceled the automatic reductions in discretionary spending for 2017 imposed by the Budget Control Act of 2011 and set new caps for that year that are, in total, $30 billion above what the limits would have been if the automatic spending reductions had occurred. (That law also made changes to the caps for 2016.) No adjustments have been made to the caps and automatic reductions in place for 2018 through 2021.