

# The Long-Term Budget Outlook Under Alternative Scenarios

## Overview

This chapter expands on the analysis in Chapter 1 in various ways. First, it shows how the federal budget and the nation's economy would evolve under an *extended alternative fiscal scenario* in which substantial tax increases and discretionary spending cuts would not take place as scheduled; instead, current law would change to maintain certain major policies that are now in place. Compared with outcomes in the Congressional Budget Office's extended baseline projections, which generally reflect current law, outcomes under the extended alternative fiscal scenario would differ in the following ways:

- Federal deficits and debt would be far larger.
- Real gross domestic product (GDP) would be lower in the long run. (Real GDP is nominal GDP that has been adjusted to remove the effects of inflation.)
- Federal spending would be higher, and most taxpayers would pay less in taxes.
- The risk of a fiscal crisis occurring would be greater over the longer run. In addition, the risk of negative economic and financial effects that were less abrupt but still significant would be greater.
- Spending on Social Security benefits for older people would be greatly curtailed, leading to increases in the overall labor supply and private saving.
- That drop in benefits would induce beneficiaries to reduce their spending, causing real GDP to be lower in the short term; but real GDP would be higher in the longer term, when the reduction in federal deficits would boost the funds available for private investment.
- The risk of a fiscal crisis occurring would be lower over the longer run. In addition, the risk of negative economic and financial effects that were less abrupt but still significant would be lower.

Second, this chapter presents an analysis under which Social Security benefits are limited to the amounts payable from revenues received by the Social Security trust funds. Under that *payable-benefits scenario*, spending for Social Security would be significantly lower than it is in the extended baseline projections. Other outcomes relative to CBO's extended baseline projections are the following:

- Federal deficits and debt as a percentage of GDP would be lower.

Third, the chapter examines the size and timing of policy changes needed to meet various goals for deficit reduction. (The policy changes examined here are illustrative, and the results do not reflect any particular assumptions about specific changes.) If lawmakers aimed for debt as a share of GDP in 2049 to fall to its 50-year average through across-the-board fiscal adjustments of equal size (as a percentage of GDP) each year, for example, they could reach that goal by increasing revenues or by decreasing spending by \$1,900 per person in 2020, CBO projects.

Additionally, the timing of deficit reduction has implications for its effects, in terms of costs and benefits, on different generations of the U.S. population. CBO estimates that delaying policy action would require larger changes in revenues and outlays to reach a given level of debt as a percentage of GDP by 2049. That is, making policy changes in 2025 or 2030 that aimed to achieve a target ratio of debt to GDP would require a greater percentage reduction in noninterest spending or a larger percentage increase in revenues than making such changes in 2020.

Furthermore, delaying policy action would reduce the well-being of younger and future generations while improving the well-being of older generations. Even though the burden of delaying policy action would be borne by future generations, income among those generations is projected to be higher, on average, owing to the growth of the U.S. economy.

### **Budgetary and Economic Effects of an Alternative Fiscal Scenario**

CBO examined budgetary and economic outcomes under an extended alternative fiscal scenario. Under that scenario, current law would be changed to maintain certain policies that are now in place. As a result, deficits would be larger than they are in CBO's extended baseline projections. For example, the deficit would be \$774 billion larger in 2029—about 60 percent larger than the deficit in CBO's baseline projections. Federal debt would equal 219 percent of GDP in 2049 and continue to rise in later years.

In the extended alternative fiscal scenario, spending and tax policies for the first 10 years are identical to those in CBO's alternative fiscal scenario.<sup>1</sup> The budgetary outcomes differ, however, because in addition to the conventional estimates, this report incorporates estimated effects of the changes in fiscal policy on the economy and the effects of those economic changes on the budget. Over the next 10 years, the extended alternative fiscal scenario incorporates the following features:

- The caps on discretionary appropriations currently in effect through 2021 cease after 2019, and appropriations instead grow at the same rate as inflation in each year.
- The expiring revenue provisions of the 2017 tax act—including provisions that specify tax rates and brackets, the number of allowable deductions, the size of the child tax credit and the portion that is refundable, and the reach of the alternative minimum tax—are extended.
- The expansion of bonus depreciation for businesses deducting certain investments is held at 100 percent.

- Certain temporary tax provisions that have recently expired or are scheduled to expire in coming years, including several trade preference programs, are permanently extended.
- Certain postponed taxes established by the Affordable Care Act are repealed.

As a result, in 2029, discretionary outlays are projected to total 5.7 percent of GDP, 0.7 percentage points greater than they are in the extended baseline projections. Revenues are projected to total 17.0 percent of GDP, 1.3 percentage points lower than they are in the extended baseline projections.

After 2029, projections of discretionary spending reflect the assumption that such spending would remain roughly constant as a percentage of GDP.<sup>2</sup> By 2049, that amount would exceed outlays in the extended baseline projections by 0.9 percentage points.

Extending the expiring tax provisions is projected to lower revenues (relative to amounts in the extended baseline projections) by an average of 1.5 percent of GDP each year between 2030 and 2049.

Nevertheless, revenues as a share of GDP trend upward under this scenario, mostly because of structural features of the tax code; they reach 17.6 percent of GDP in 2049. That upward trend differs from historical experience, however. Over the past 50 years, federal revenues as a percentage of GDP have fluctuated around their 50-year average of 17.4 percent with no evident long-term trend.

### **How CBO Analyzed Outcomes Under the Extended Alternative Fiscal Scenario**

Relative to the fiscal policy in place under current law, fiscal policy under this scenario would reflect significant changes. Those changes are projected to have effects on the economy that would feed back to budgetary outcomes. CBO has not analyzed every way in which those changes would affect the economy in the long term. Instead, for the simplified analysis presented in this report, CBO has analyzed three of those effects.<sup>3</sup>

1. See Congressional Budget Office, *Updated Budget Projections: 2019 to 2029* (May 2019), [www.cbo.gov/publication/55151](http://www.cbo.gov/publication/55151).

2. That assumption also underlies the extended baseline projections. See Table 1-2 on page 19.

3. For a general explanation of how CBO analyzes the effects of fiscal policies, see Congressional Budget Office, *How CBO Analyzes the Effects of Changes in Federal Fiscal Policies on the Economy* (November 2014), [www.cbo.gov/publication/49494](http://www.cbo.gov/publication/49494).

- Effective marginal tax rates on labor income would be lower under the extended alternative fiscal scenario than they are in the extended baseline projections, encouraging people to work and save more and thereby increasing output.<sup>4</sup>
- Effective marginal tax rates on income from most types of capital would also be lower, which would encourage saving and investment and again increase output.<sup>5</sup>
- Federal debt would be greater under the extended alternative fiscal scenario than it is in the extended baseline projections—drawing money away from (or “crowding out”) investment in capital goods and services, reducing the stock of private capital, and making output smaller than it would be otherwise.

In addition to those three effects, any changes to fiscal policy could alter people’s incentives in other ways, possibly resulting in significant long-term changes to the economy. For example, changes to tax policy might alter businesses’ choices about how they were structured, and those choices might then alter the effective marginal tax rate on capital income. Similarly, changes in the tax treatment of mortgage debt would affect households’ decisions about how much to save. Because this analysis is simplified, it does not incorporate those effects.

CBO also analyzed short-term outcomes under the extended alternative fiscal scenario. Policies that increased spending or reduced revenues would boost overall demand for goods and services over the next few years, thereby making output and employment in the short term higher than they would be otherwise.

CBO estimated the effects of this scenario on both GDP and GNP (gross national product). Each of those measures is important for different reasons. GDP is important because by accounting for effects on domestic economic and income growth, it helps assess the productive capacity—and therefore the tax base—of the economy

4. The effective marginal tax rate on labor income is the share of an additional dollar of such income that is paid in federal individual income taxes and payroll taxes—averaged among taxpayers, with weights proportional to their labor income.
5. The effective marginal tax rate on capital income is the share of the return on an additional dollar of investment made in a particular year that will be paid in taxes over the life of that investment.

within U.S. borders (including the contributions of foreign-owned capital and labor). GNP is important because it is a more complete measure of the income available to U.S. residents. (GNP differs from GDP by including the income that U.S. residents earn abroad and excluding the income that nonresidents earn from domestic sources.) Under the extended alternative fiscal scenario, the amount of federal debt owned by foreigners and the inflows of foreign capital are larger than they are in CBO’s extended baseline projections. As a result, the long-term negative effects of that debt on GNP are larger than the negative effects on GDP.

### **Budgetary and Economic Outcomes Under the Extended Alternative Fiscal Scenario**

Under the extended alternative fiscal scenario, CBO projects, the primary deficit (which excludes interest costs) in 2049 would be 6.1 percent of GDP. (In the extended baseline projections, it is 3.0 percent of GDP.) Once the rising costs of debt service are added, the total deficit in 2049 would equal 15.5 percent, not the 8.7 percent of GDP it equals in CBO’s extended baseline projections (see Table 2-1).

CBO projects the following outcomes in 2049. (Amounts in the extended baseline projections are shown in parentheses.)

- Net interest costs would be 9.4 percent of GDP (rather than 5.7 percent).
- Total spending excluding interest payments would be 23.7 percent of GDP (rather than 22.5 percent).
- Revenues would be 17.6 percent of GDP (rather than 19.5 percent).
- Debt held by the public would be 219 percent of GDP (rather than 144 percent).

The crowding out of private investment, the smaller capital stock, and the larger supply of labor would, on balance, cause output to be lower and interest rates to be higher in the long term under the extended alternative fiscal scenario than they are in the extended baseline projections. In 2049, for instance, real GDP would be 2.5 percent lower (see Table 2-2). In addition, real GNP in 2049 would be 3.6 percent lower, and real GNP per person would be about \$3,400 lower (see Figure 2-1 on page 42). Also, the interest rate on 10-year Treasury

Table 2-1.

**Budget Projections Under Three Scenarios**

Percentage of Gross Domestic Product

	2029	2049
<b>Revenues</b>		
Extended Baseline	18.3	19.5
Extended Alternative Fiscal Scenario	17.0	17.6
Payable-Benefits Scenario	18.3	19.6
<b>Spending Excluding Interest Payments</b>		
Extended Baseline	19.8	22.5
Extended Alternative Fiscal Scenario	20.6	23.7
Payable-Benefits Scenario	19.8	20.5
<b>Deficit (-) or Surplus, Excluding Interest Payments</b>		
Extended Baseline	-1.6	-3.0
Extended Alternative Fiscal Scenario	-3.6	-6.1
Payable-Benefits Scenario	-1.6	-0.9
<b>Total Deficit (-) or Surplus</b>		
Extended Baseline	-4.5	-8.7
Extended Alternative Fiscal Scenario	-7.0	-15.5
Payable-Benefits Scenario	-4.5	-4.9
<b>Federal Debt Held by the Public</b>		
Extended Baseline	92	144
Extended Alternative Fiscal Scenario	105	219
Payable-Benefits Scenario	92	106

Source: Congressional Budget Office.

The extended baseline projections generally reflect current law, following CBO's 10-year baseline budget projections through 2029 and then extending most of the concepts underlying those projections for the rest of the long-term projection period.

Under the extended alternative fiscal scenario, substantial tax increases and discretionary spending cuts would not take place as scheduled; instead, current law would be changed to maintain certain major policies that are now in place. Under the payable-benefits scenario, spending for Social Security would be significantly lower than it is in the extended baseline projections.

The estimates of deficits, surpluses, and debt include macroeconomic feedback.

securities in 2049 would be 0.4 percentage points higher than the rate in CBO's extended baseline projections.

In addition to the effects on output and interest rates reported here, other effects would occur under the extended alternative fiscal scenario. In particular, the significant increase in federal borrowing would elevate

the risk of a fiscal crisis and would limit lawmakers' ability to respond to unforeseen events. Negative economic and financial effects that were less abrupt but still significant—such as higher inflation expectations or an increased burden of financing public and private activity in international markets—would also have a greater chance of occurring under this scenario. Those effects would worsen the consequences associated with high and rising federal debt.

The policies underlying the extended alternative fiscal scenario would have short-term effects as well. Over the next few years, greater federal spending would boost the overall demand for goods and services, causing output to be higher than it otherwise would be. In CBO's estimation, real GDP would be 0.7 percent higher in 2020 and 0.4 percent higher in 2021 than it is in the extended baseline projections. In addition, the Federal Reserve would respond, in CBO's view, by raising interest rates to restrain the boost in overall demand and prevent inflation from rising above the central bank's goal. As a result, the interest rate on 10-year Treasury securities would be 0.2 percentage points higher in 2020 and 2021 than it is in the extended baseline projections, CBO estimates (see Table 2-3 on page 43).

The economic and budgetary effects of the policies underlying the extended alternative fiscal scenario are highly uncertain, as are the effects of the extended baseline. That uncertainty arises mainly from two sources: uncertainty about future economic conditions and demographic trends, and uncertainty about the macroeconomic effects of policy changes. If future economic and demographic conditions and their responses to policy changes differed from CBO's projections, budgetary and economic outcomes would differ from those the agency estimates under the extended alternative fiscal scenario.

For example, if federal borrowing rates were 0.1 percentage point higher (or lower) than they are in the extended baseline projections, debt in the extended alternative fiscal scenario would be 225 percent of GDP (or 212 percent of GDP) rather than 219 percent in 2049. If total factor productivity growth was 0.1 percentage point higher (or lower), debt would be 209 percent of GDP (or 228 percent of GDP). Those estimated effects are roughly scalable for moderate changes in the economic variables. In particular, if interest rates were more than 0.5 percentage points higher than they are in the extended baseline projections or total factor productivity growth was more

Table 2-2.

**Long-Term Economic Effects Under Two Scenarios Relative to CBO's Extended Baseline Projections**

	2029	2049
<b>Real GDP (Percent)</b>		
Extended Alternative Fiscal Scenario	-0.1	-2.5
Payable-Benefits Scenario	n.a.	1.7
<b>Interest Rates on 10-Year Treasury Securities (Percentage points)</b>		
Extended Alternative Fiscal Scenario	0.1	0.4
Payable-Benefits Scenario	n.a.	-0.2

Source: Congressional Budget Office.

The extended baseline projections generally reflect current law, following CBO's 10-year baseline budget projections through 2029 and then extending most of the concepts underlying those projections for the rest of the long-term projection period.

Under the extended alternative fiscal scenario, substantial tax increases and discretionary spending cuts would not take place as scheduled; instead, current law would be changed to maintain certain major policies that are now in place. Under the payable-benefits scenario, spending for Social Security would be significantly lower than it is in the extended baseline projections.

n.a. = not applicable.

than 0.3 percentage points lower, projected debt as a percentage of GDP under the extended alternative fiscal scenario would grow to levels well outside of U.S. historical experience, which provides the empirical basis for CBO's models.

**Budgetary and Economic Effects of a Payable-Benefits Scenario**

Without legislative action, the combined trust funds for Social Security (known as Old-Age, Survivors, and Disability Insurance, or OASDI) are projected to be exhausted in calendar year 2032. Beyond that point, trust fund balances would no longer be available to make up the gap between benefits specified in current law and annual trust fund receipts. CBO's extended baseline projections reflect the assumption that the Social Security Administration will pay benefits as scheduled under current law regardless of the status of the program's trust funds.<sup>6</sup> However, if the trust funds' combined balance

6. That approach is consistent with the requirement that CBO's 10-year baseline projections incorporate the assumption that funding for such programs is adequate to make all payments required by law.

declined to zero and current revenues were insufficient to pay benefits specified in law, the Social Security Administration would no longer be permitted to pay beneficiaries the full amounts to which they were entitled.<sup>7</sup> CBO analyzed a payable-benefits scenario in which Social Security benefits would be limited to the amounts payable from dedicated funding sources beginning in 2033.

Although it is unclear how much payments for specific beneficiaries would be reduced if total benefits were limited to the amounts payable from dedicated funding, CBO estimated the amount of the total reduction in annual benefits that would be necessary for the trust funds' outlays to match revenues in each year after the funds were exhausted. The required reduction would amount to 24 percent in 2033 and rise gradually to 29 percent in 2049 (relative to the amounts in CBO's extended baseline projections).

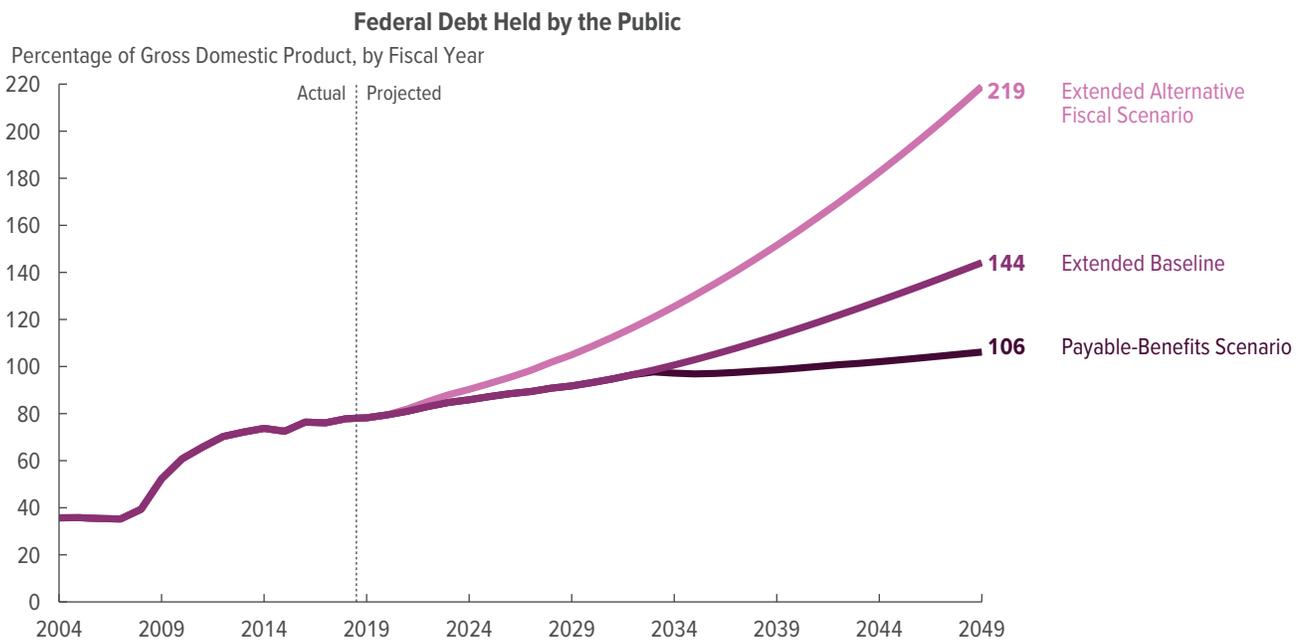
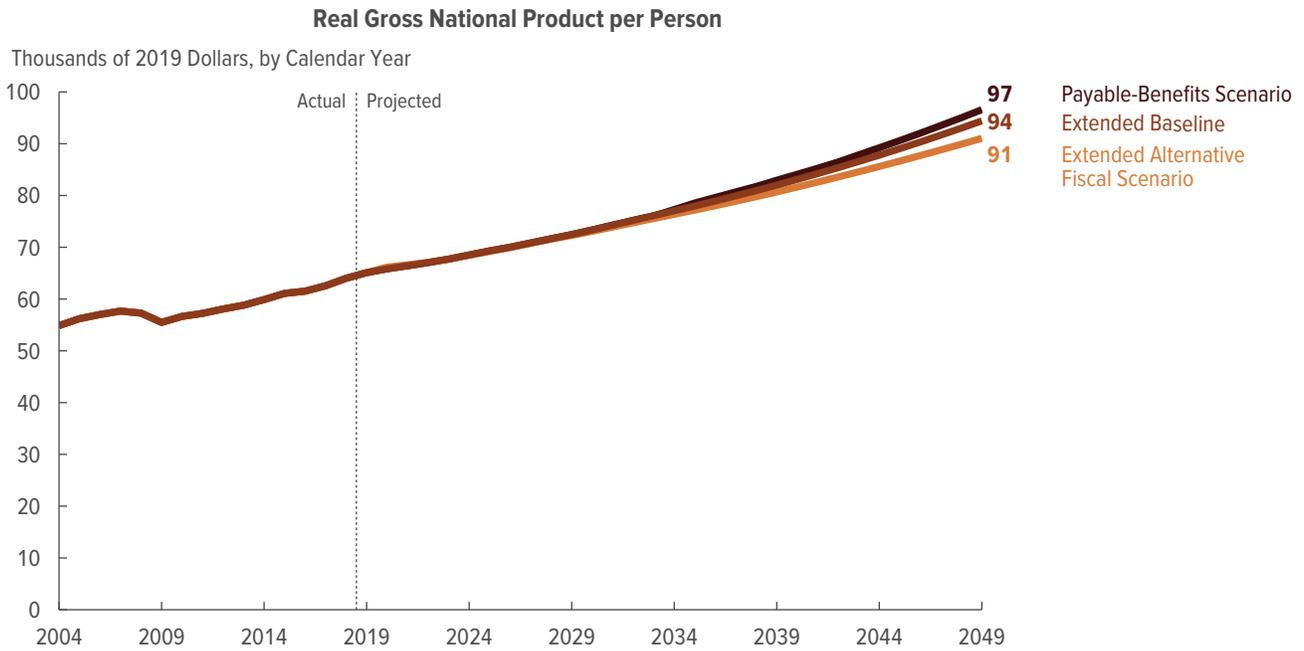
In CBO's assessment, if benefits paid out were limited to revenues received by the Social Security trust funds, federal deficits would decrease by 1.5 percent of GDP in 2033 and by 3.8 percent in 2049 (relative to the amounts in CBO's extended baseline projections). The cut in benefits would not be announced until 2033 and would therefore be unexpected (which matters for the projection of macroeconomic effects). That abrupt cut in benefits in 2033 would cause a substantial drop in consumer spending and a corresponding increase in saving. It would also probably induce some older workers to work more hours or to delay retirement and save more. In addition, some Social Security beneficiaries might return to work to supplement their income.

Under the payable-benefits scenario, changes in overall demand would lower GDP in the first few years following the reduction in benefits. In the long run, however, increases in the labor supply and investment stemming from smaller budget deficits would boost output and reduce interest rates. Those changes, which are measured relative to amounts in CBO's extended baseline projections, would generally decrease income and wealth for older generations and increase them for

7. The balances of the trust funds represent the total amount that the government is legally authorized to spend. For more details about the legal issues related to exhaustion of a trust fund, see William R. Morton and Barry F. Huston, *Social Security: What Would Happen If the Trust Funds Ran Out?* Report for Congress RL33514 (Congressional Research Service, June 11, 2018), <https://go.usa.gov/xEtaw>.

Figure 2-1.

**Output per Person and Debt Under Three Scenarios**



Source: Congressional Budget Office.

The extended baseline projections generally reflect current law, following CBO’s 10-year baseline budget projections through 2029 and then extending most of the concepts underlying those projections for the rest of the long-term projection period.

Under the extended alternative fiscal scenario, substantial tax increases and discretionary spending cuts would not take place as scheduled; instead, current law would be changed to maintain certain major policies that are now in place. Under the payable-benefits scenario, spending for Social Security would be significantly lower than it is in the extended baseline projections.

Gross national product differs from gross domestic product, the more common measure of the output of the economy, by including the income that U.S. residents earn abroad and excluding the income that nonresidents earn in this country.

The estimates of deficits, surpluses, and debt include macroeconomic feedback.

Table 2-3.

**Short-Term Economic Effects Under Two Scenarios Relative to the Extended Baseline Projections**

	2020	2021	2033	2034
	<b>Real GDP (Percent)</b>			
Extended Alternative Fiscal Scenario	0.7	0.4	n.a.	n.a.
Payable-Benefits Scenario	n.a.	n.a.	-0.8	-0.1
	<b>Interest Rates on 10-Year Treasury Securities (Percentage points)</b>			
Extended Alternative Fiscal Scenario	0.2	0.2	n.a.	n.a.
Payable-Benefits Scenario	n.a.	n.a.	-0.7	-0.4

Source: Congressional Budget Office.

The extended baseline projections generally reflect current law, following CBO's 10-year baseline budget projections through 2029 and then extending most of the concepts underlying those projections for the rest of the long-term projection period.

Under the extended alternative fiscal scenario, substantial tax increases and discretionary spending cuts would not take place as scheduled; instead, current law would be changed to maintain certain major policies that are now in place. Under the payable-benefits scenario, spending for Social Security would be significantly lower than it is in the extended baseline projections.

n.a. = not applicable.

younger ones. That shift would stem not only from the direct effects of a drop in benefits, but also from macroeconomic effects that would raise wages in the long run. Incorporating those macroeconomic effects into its analysis, CBO projects that the debt-to-GDP ratio would stand at 106 percent in 2049, 38 percentage points below the extended baseline projection—but still well above the current level.

### How CBO Analyzed Outcomes Under the Payable-Benefits Scenario

As with the extended alternative fiscal scenario, this scenario represents significant changes to the fiscal policy projected under current law. Because benefit cuts would be unexpected, workers would not adjust their saving and hours worked beforehand. Hence, projections under this scenario do not differ from those in the extended baseline until 2033, when those cuts would begin. Thereafter, people would expect benefits to be reduced permanently. As a result, changes in investment and the labor supply would lead in the long term to greater output and lower interest rates than in CBO's extended baseline projections. Although CBO has not analyzed every way in which those changes would affect the economy in the long term, the agency analyzed four of those effects for this report.

- The reduction in benefits would decrease retirees' income, pushing down the overall demand for goods and services and causing output to be lower than it

is in the extended baseline projections in 2033 and 2034.

- The benefit cuts would cause some people to work more and some to remain in the labor force longer than they would have otherwise. Both of those factors would expand the supply of labor and thus the economy's output in the long term.
- In CBO's assessment, some workers who have not yet retired would respond to the prospect of smaller benefit payments by boosting their saving and reducing their spending.<sup>8</sup> Those changes would lessen the effect that smaller future benefit payments would have on households' future income and spending. The resulting increases in saving and the labor supply would boost the capital stock and GDP.
- Federal debt would be lower than it is in the extended baseline projections—increasing the amount of money available for (or “crowding in”) private investment in capital goods and services, boosting the stock of private capital, and making output greater than it would be otherwise.

8. In this analysis, CBO did not address the potential effects of moving households' savings into or out of tax-deferred or taxable savings accounts.

### **Budgetary and Economic Outcomes Under the Payable-Benefits Scenario**

In 2049, primary deficits under the payable-benefits scenario would be smaller than they are in CBO's extended baseline projections—0.9 percent of GDP instead of 3.0 percent of GDP. Adding debt-service costs raises those amounts to 4.9 percent of GDP under the payable-benefits scenario and to 8.7 percent of GDP in the extended baseline projections (see Table 2-1 on page 40).

For the payable-benefits scenario, CBO projects the following outcomes in 2049 (compared with outcomes in the extended baseline):

- Net interest costs would be 4.0 percent of GDP (rather than 5.7 percent).
- Total spending excluding net interest costs would be 20.5 percent of GDP (rather than 22.5 percent).
- Revenues would be 19.6 percent of GDP (rather than 19.5 percent).
- Debt would be 106 percent of GDP (rather than 144 percent).

In CBO's assessment, the crowding in of private investment and the increase in the supply of labor and the capital stock would cause output to be higher and interest rates to be lower in the long term under the payable-benefits scenario than they are in the extended baseline projections. Specifically, real GDP would be 1.7 percent higher in 2049, CBO estimates (see Table 2-2 on page 41). In addition, real GNP would be 2.3 percent higher in 2049, and real GNP per person would be about \$2,200 higher in that year (see Figure 2-1 on page 42). In contrast, the interest rate on 10-year Treasury securities would be 0.2 percentage points lower under this scenario than it is in CBO's extended baseline projections.

The policies underlying the payable-benefits scenario would have short-term effects as well. In CBO's assessment, people would respond to smaller benefit payments by reducing their spending, which would decrease the overall demand for goods and services. As a result, real GDP would be 0.8 percent lower in 2033 and 0.1 percent lower in 2034 than it is in the extended baseline projections, CBO estimates. In CBO's view, the Federal Reserve would respond by lowering interest rates to boost overall demand and prevent inflation from falling below

the central bank's longer-term goal. In addition, the increase in the saving rate—and other factors—would further reduce interest rates. Taken together, those effects would cause the interest rate on 10-year Treasury securities to be 0.7 percentage points lower in 2033 and 0.4 percentage points lower in 2034 than it is in the extended baseline projections, in CBO's estimation (see Table 2-3 on page 43).

The economic and budgetary effects of the policies underlying the payable-benefits scenario are highly uncertain, as are the effects of the extended baseline. That uncertainty arises mainly from two sources: uncertainty about future economic conditions and demographic trends, and uncertainty about how reductions in Social Security benefits would affect the economy and the budget. If future economic and demographic conditions and the macroeconomic effects of reduced Social Security benefits differed from CBO's projections, budgetary and economic outcomes would differ from those the agency estimates under the payable-benefits scenario. For example, if interest rates on federal debt were 0.1 percentage point higher (or lower) than they are in the extended baseline projections, debt in the payable-benefits scenario would be 109 percent of GDP (or 102 percent of GDP) rather than 106 percent in 2049. If total factor productivity growth was 0.1 percentage point higher (or lower), debt would be 100 percent of GDP (or 111 percent of GDP). Those estimated effects are roughly scalable for moderate changes in the economic variables.

### **The Size and Timing of Policy Changes Needed to Meet Various Goals for Deficit Reduction**

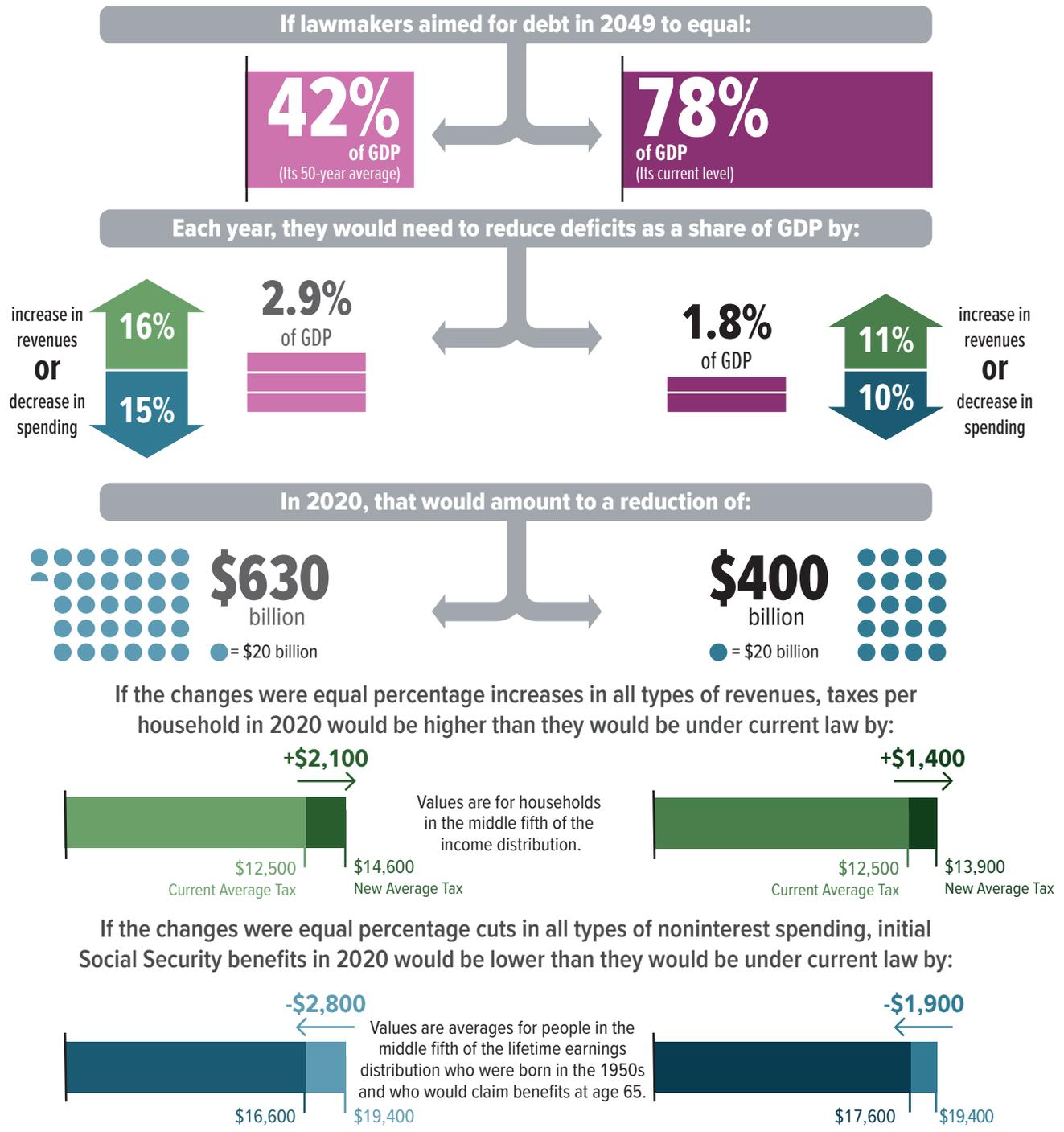
CBO estimated the size of changes in spending or revenues that would be needed if lawmakers wanted to achieve some specific targets for federal debt held by the public. The agency also assessed the extent to which the size of policy adjustments would change if such deficit reduction occurred later, and it examined how waiting to resolve the long-term fiscal imbalance would affect different generations of the U.S. population.

#### **The Size of Policy Changes Needed to Meet Various Goals for Deficit Reduction**

If lawmakers wanted debt in 2049 to match its current level of 78 percent of GDP, they could cut noninterest spending or raise revenues (or do both) in each year beginning in 2020 by amounts totaling 1.8 percent of GDP (see Figure 2-2). In 2020, 1.8 percent of GDP would be about \$400 billion, or \$1,200 per person. If

Figure 2-2.

**The Size of Policy Changes Needed to Make Federal Debt Meet Two Possible Goals in 2049**



Source: Congressional Budget Office

In this figure, the indicated sizes of policy changes are relative to CBO’s extended baseline projections, which generally reflect current law, following CBO’s 10-year baseline budget projections through 2029 and then extending most of the concepts underlying those projections for the rest of the long-term projection period. The projected effects of the policy changes on debt include the direct effects of the policy changes and the feedback to the federal budget from faster economic growth. The effects on growth and the feedback to the federal budget reflect the positive economic effects of lowering the debt but do not reflect any assumptions about the specific details of the policy changes.

GDP = gross domestic product.

such an adjustment was made in each year, the budget would show a primary surplus of 0.2 percent of GDP in 2030 and a primary deficit of 0.7 percent of GDP by 2049. If the changes came entirely from revenues or spending, they would amount to an 11 percent increase in revenues or a 10 percent cut in noninterest spending (relative to amounts in CBO's extended baseline projections).

Increases in revenues or cuts in noninterest spending would need to be larger than 1.8 percent of GDP to reduce debt to levels recorded in recent decades. If lawmakers wanted to decrease debt to 42 percent of GDP (its average over the past 50 years) by 2049, they could increase revenues or cut noninterest spending (in relation to amounts under current law) or adopt some combination of those two actions beginning in 2020 by amounts totaling 2.9 percent of GDP each year. In 2020, 2.9 percent of GDP would be about \$630 billion, or \$1,900 per person.

To lower debt to its average over the past 50 years solely by increasing revenues or cutting noninterest spending, lawmakers could make the following changes:

- If collections of the various types of revenues were increased proportionally, total revenues would need to be about 16 percent higher each year over the 2020–2049 period. On average, that adjustment would result in federal taxes that were about \$2,100 higher than they are under current law for households in the middle fifth of the income distribution in 2020.
- If all types of noninterest spending were cut by an equal percentage, spending overall would need to be about 15 percent lower in each of the next 30 years. For example, such cuts would lower initial annual Social Security benefits by about \$2,800, on average, for people in the middle fifth of the lifetime earnings distribution who were born in the 1950s and who first claimed benefits at age 65.

In those examples, the projected effects on debt include both the direct effects of the policy changes and the feedback to the federal budget that would result from faster economic growth. In general, reducing the federal debt increases the amount of money available for (or crowds in) private investment in capital goods and services, which increases the stock of private capital and economic output. The policy changes examined here are illustrative,

however, and the results do not reflect any particular assumptions about specific changes. Any policy change could alter productivity growth and people's incentives to work and save, which would in turn affect overall economic output and feed back to the federal budget.

### **The Timing of Policy Changes Needed to Meet Various Goals for Deficit Reduction**

The size of the policy changes needed to achieve a particular goal for federal debt would depend, in part, on how quickly that goal was expected to be reached. Regardless of the chosen goal for federal debt, lawmakers would face trade-offs in deciding how quickly to implement policies designed to reduce or stabilize debt as a percentage of GDP. The benefits of reducing the deficit sooner would include a smaller accumulated debt, smaller policy changes required to achieve long-term outcomes, and less uncertainty about the policies lawmakers would adopt. If lawmakers cut spending or increased taxes abruptly, people might have insufficient time to plan for or to adjust to the new system.

Over the first several years following their adoption, such policy changes would dampen overall demand for goods and services, thus decreasing output and employment below amounts projected under current law. That dampening effect is expected to be temporary, however, because of how prices and interest rates would respond to the reductions in demand and to the resulting actions by the Federal Reserve.

By contrast, if policymakers waited longer to reduce federal spending or increase taxes, more debt would accumulate, which would slow the growth of output and income. Delaying implementation would thus mean that reaching any chosen target for debt would require larger changes. Nonetheless, if policymakers waited longer to enact deficit-reduction policies, the economy probably would be affected less over the short term than it would be if changes were made immediately.

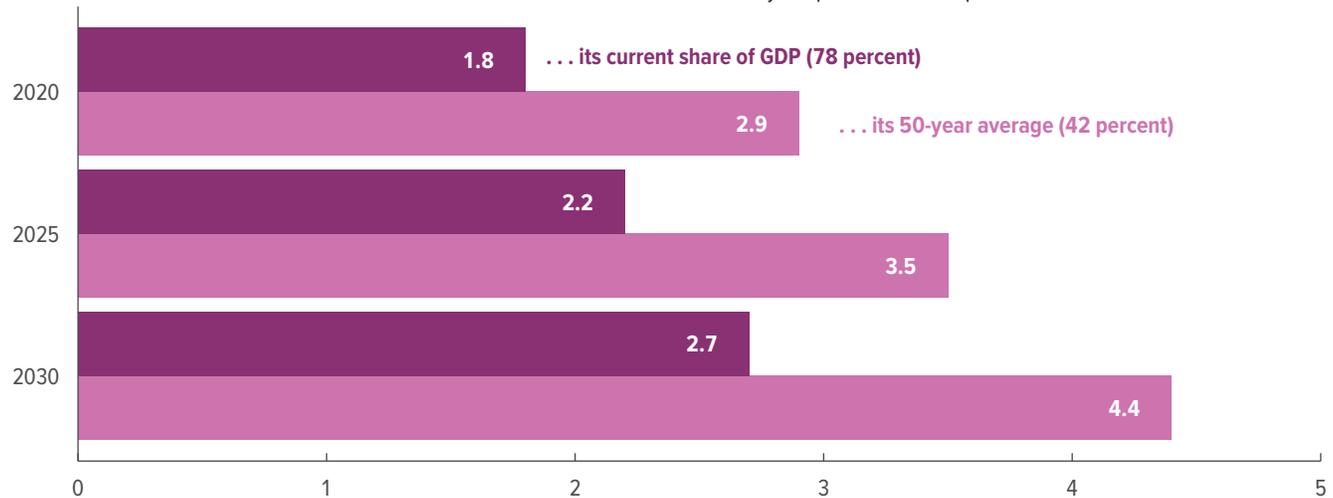
Faster or slower implementation of policies to reduce budget deficits would tend to impose different burdens on different generations. Reducing deficits sooner would probably require older workers and retirees to sacrifice more but would benefit younger workers and future generations. Reducing deficits later would require smaller sacrifices from older people but greater ones from younger workers and future generations.

Figure 2-3.

### How Timing Affects the Size of Policy Changes Needed to Make Federal Debt Meet Two Possible Goals in 2049

Percentage of GDP

Starting Year



Source: Congressional Budget Office.

GDP = gross domestic product.

CBO has analyzed those trade-offs in two ways. First, it estimated the extent to which the size of policy adjustments would change if deficit reduction was delayed by five or 10 years. (CBO did not make any assumptions about the specific policy changes that might be used to reduce the deficit.) For example, if lawmakers sought to reduce debt as a share of GDP to its historical 50-year average of 42 percent in 2049 and if the necessary policy changes did not take effect until 2025, the annual reduction in the primary deficit would need to amount to 3.5 percent of GDP rather than the 2.9 percent that would accomplish the same goal if the changes were made starting in 2020 (see Figure 2-3). If lawmakers chose to wait another five years to implement the policies (having them take effect in 2030), even larger changes would be necessary; in that case, the required annual reduction in the primary deficit would amount to 4.4 percent of GDP.

Second, CBO studied the effects on the average per capita income of various generations from waiting to resolve the long-term fiscal imbalance. CBO compared economic outcomes under two types of policies. One would stabilize the debt-to-GDP ratio starting in a particular year, and the other would wait 10 years to do so. For policies

such as across-the-board benefit cuts or tax rate increases for all adults, that analysis suggests that the average income of generations born after the earlier implementation date would be lower under the policy with a 10-year delay.<sup>9</sup> In contrast, people born more than 25 years before the earlier implementation date would have a higher average income if action was delayed—mainly because they would partly or entirely avoid the policy changes needed to stabilize the debt. Generations born between those

9. Those results are preliminary conclusions from an update of work that CBO published in 2010. See Congressional Budget Office, *Economic Impacts of Waiting to Resolve the Long-Term Budget Imbalance* (December 2010), [www.cbo.gov/publication/21959](http://www.cbo.gov/publication/21959). That analysis was based on a projection of slower growth in debt than CBO now projects, so the estimated effects of a similar policy today would be close, but not identical, to the effects estimated in that analysis. For a different approach to analyzing the costs of debt reduction for different generations, see Shinichi Nishiyama and Felix Reichling, *The Costs to Different Generations of Policies That Close the Fiscal Gap*, Working Paper 2015-10 (Congressional Budget Office, December 2015), [www.cbo.gov/publication/51097](http://www.cbo.gov/publication/51097).

two groups could either gain or lose from delayed action, depending on the specific details of the policy changes.<sup>10</sup>

CBO's analysis indicates that delaying policy changes would reduce the well-being of younger generations compared with a situation in which policy changes occurred earlier. Moreover, the further in the future that a policy change occurred, the more the well-being of older generations would be improved and that of younger generations would be worsened. However, the additional burden on younger generations resulting from delaying policy

changes would be relatively small compared with their lifetime earnings potential because, on average, future generations are expected to have much higher income than current generations.

Even if lawmakers waited to implement policy changes to reduce deficits in the long term, deciding about those changes sooner would offer two main advantages. First, people would have more time to prepare by changing the number of hours they work, the age at which they plan to retire, and the amount they choose to save. Second, policy changes that would reduce the debt over the long term would hold down longer-term interest rates and could lessen uncertainty—thus enhancing businesses' and consumers' confidence. Those factors would boost output and employment in the near term.

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10. Those conclusions do not incorporate the negative effects that would arise from a fiscal crisis if one occurred or effects that might arise from the government's reduced flexibility to respond to unexpected challenges.