



Appendix A: Changes in CBO's Baseline Projections

Overview

The Congressional Budget Office estimates that if no new legislation affecting spending or revenues is enacted, the budget deficit for fiscal year 2020 will total \$1,015 billion. That amount is \$8 billion (or 0.7 percent) larger than the \$1,008 billion deficit the agency estimated in August 2019, when it last updated its baseline budget projections.¹ CBO also now projects that if current laws generally remained in place, the cumulative deficit for the 2020–2029 period would be about \$12.4 trillion—\$0.2 trillion (or 1.3 percent) more than the \$12.2 trillion in the agency's August 2019 baseline projections. CBO's current projections of total outlays over that period changed very little since August, and total revenues are about 0.3 percent smaller.

When CBO updates its baseline budget projections, it groups the revisions it makes into three categories:

- Legislative changes, which result from laws enacted since the agency published its previous baseline projections and which generally reflect the budgetary effects reported in CBO's cost estimates when the legislation was enacted;²
- Economic changes, which arise from updates the agency has made to its economic forecast (including those made to incorporate the macroeconomic effects of recently enacted legislation); and
- Technical changes, which are revisions to projections that are neither legislative nor economic.

1. See Congressional Budget Office, *An Update to the Budget and Economic Outlook: 2019 to 2029* (August 2019), www.cbo.gov/publication/55551.

2. The current baseline projections include the effects of legislation passed by the Congress through January 7, 2020. The most recently enacted law with significant budgetary effects reflected in this analysis is the Further Consolidated Appropriations Act, 2020 (Public Law 116-94).

The \$8 billion increase in the projected deficit for 2020 is the net result of a \$49 billion increase attributable to legislative changes, a \$68 billion decrease stemming from economic changes, and a \$27 billion increase attributable to technical changes.

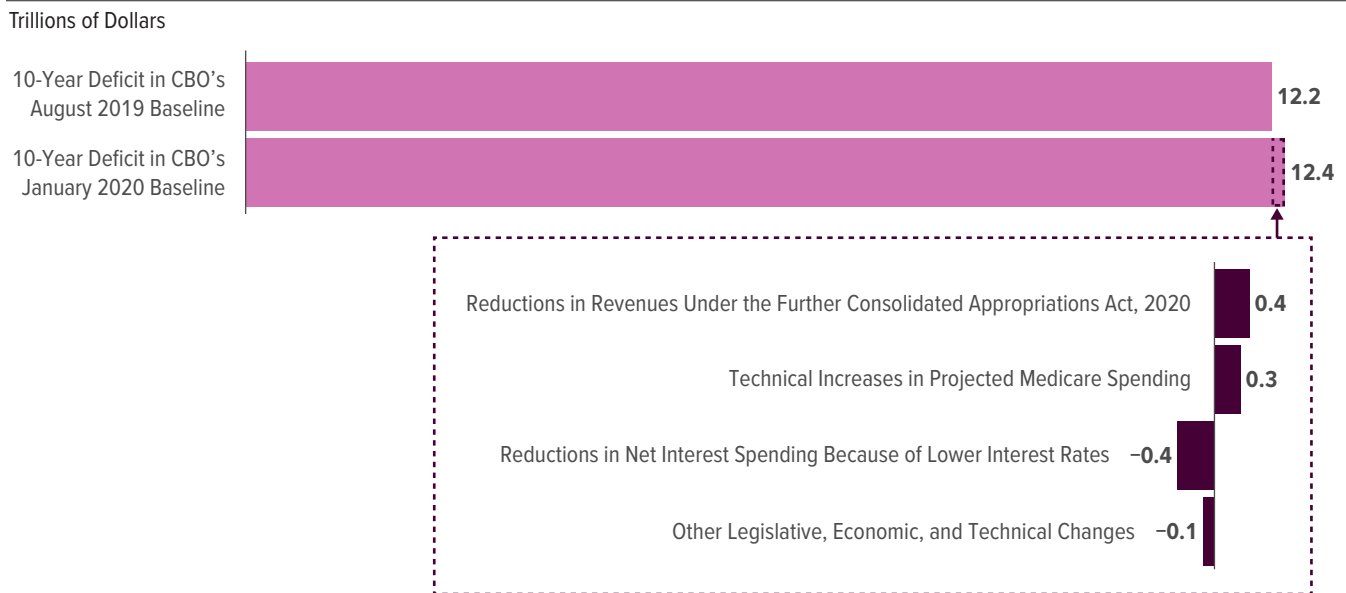
The increase in the agency's projection of the cumulative deficit for the 2020–2029 period stems from the following changes (see Figure A-1):

- Legislative changes *increased* projected deficits by \$505 billion, primarily because of reductions in revenues resulting from provisions of the Further Consolidated Appropriations Act, 2020 (Public Law 116-94), that totaled \$422 billion.
- Economic changes *reduced* deficits by \$705 billion. Most significantly, the agency revised its projections of interest costs downward by \$441 billion because it lowered its forecasts of interest rates.
- On net, technical updates to the agency's projections of revenues and outlays *increased* projected deficits over the period by a total of \$360 billion. The largest technical revision was an increase of \$315 billion in CBO's projections of Medicare spending.

As a result of those changes, over the 2020–2029 period, *primary* deficits—that is, deficits excluding net outlays for interest—are now projected to be a total of \$523 billion greater than they were in CBO's August 2019 baseline projections. That increase in projected primary deficits is partially offset by a reduction of \$363 billion in the agency's projections of interest costs over that same period.

The agency's projections of federal debt held by the public have increased but by less than they would have if the agency had not lowered its forecasts of interest rates. In August, the agency projected that debt held by the public would be \$29.3 trillion (equal to 95 percent of gross

Figure A-1.

Changes in CBO's Baseline Projection of the 10-Year Deficit Since August 2019

Source: Congressional Budget Office.

domestic product, or GDP) at the end of 2029; CBO now projects that such debt would reach \$29.7 trillion (or 96 percent of GDP) that year if current laws generally remained unchanged. (For a discussion of changes made to CBO's long-term projections since they were last updated in June 2019, see Box 1-1 in Chapter 1.)

Legislative Changes

The two pieces of legislation enacted since August that had the most significant effects on CBO's projections were the Consolidated Appropriations Act, 2020 (P.L. 116-93), and the Further Consolidated Appropriations Act, 2020, which together provided annual appropriations for the entire federal government for 2020, amended several tax provisions, and made changes to certain mandatory programs. Most of the \$505 billion increase in projected deficits for the 2020–2029 period was driven by a reduction in revenues stemming from the repeal of several taxes related to health care. On net, the changes affecting outlays were relatively small.

Changes in Revenues

CBO reduced its estimate of revenues for 2020 by \$34 billion (or 1.0 percent) and its projections for the 2020–2029 period by \$422 billion (or 0.9 percent) to

account for legislation enacted since August 2019 (see Table A-1). Nearly all of those changes stem from the Further Consolidated Appropriations Act, 2020, which included the temporary extension of several dozen expiring or recently expired tax provisions and the repeal of three excise taxes related to health care. The staff of the Joint Committee on Taxation (JCT) estimated that the temporary extensions will reduce receipts in 2020 by \$22 billion. Among the temporarily extended provisions are incentives for investment in biodiesel and renewable fuels and an increase in the amount of medical expenses that can be deducted from income. In addition, the legislation provided tax relief to areas and individuals affected by certain natural disasters in 2018 and 2019; such relief is projected to reduce receipts by \$10 billion in 2020.

Most of the reduction in projected revenues over the remainder of the decade results from the repeal of three excise taxes originally enacted in 2010 as part of the Affordable Care Act. From 2020 through 2029, the effects of the repeal of those taxes are as follows:

- A \$201 billion reduction in revenues from the repeal of the tax—that had not yet taken effect—on employment-based health insurance plans with premiums exceeding certain thresholds,

- A \$151 billion reduction in revenues from the repeal of the annual fee imposed on many health insurers, and
- A \$26 billion reduction in revenues from the repeal of the tax on manufacturers and importers of certain medical devices.

All told, repealing those taxes will reduce federal revenues by about \$377 billion over the 2020–2029 period, CBO and JCT estimate.

Those estimated reductions in revenues include not only the effects on excise taxes but also the related effects on income and payroll taxes. For example, CBO and JCT projected that if the excise tax on high-premium insurance plans had taken effect in 2022 as previously scheduled, it would have increased revenues in two significant ways. First, some health insurance plans would have paid the excise tax. Second, some employers and workers would have shifted to insurance plans with lower premiums to avoid paying the tax or to reduce their tax liability. Those shifts would have generally increased income tax revenues because affected workers would have received less of their income in nontaxable health benefits and more in taxable wages. Therefore, repealing that tax is projected to reduce collections of excise taxes and collections of income and payroll taxes (because taxable wages are projected to be lower than they would have been if the tax had taken effect). Those revenue reductions rise steadily throughout the period. The effect on wages is reflected in CBO's current economic forecast, but all of the budgetary effects of the repeal of the excise tax are classified as legislative changes.

Changes in Outlays

As a result of legislation enacted since August 2019, CBO has increased its estimate of outlays in 2020 by \$14 billion (or 0.3 percent) and its projections of outlays for the 10-year period by a total of \$83 billion (or 0.1 percent). The main driver of that change is an increase in projected debt-service costs stemming from the revenue reductions discussed in the previous section.³

3. Changes in debt-service costs in CBO's baseline are the result of increases or decreases in annual deficits stemming from legislative, economic, or technical changes. Other changes to projected net outlays for interest are the result of economic factors, such as changes in projected interest rates, or technical changes, such as changes in the mix of securities that the Treasury is projected to use in its borrowing. Those changes in net interest outlays are discussed separately in the sections on economic and technical changes.

Mandatory Outlays. Because of recently enacted legislation, CBO made small net changes to its projections of mandatory outlays, increasing its estimate for 2020 by \$5 billion (or 0.2 percent) and its projections for the 2020–2029 period by \$26 billion (or 0.1 percent).

Patient-Centered Outcomes Research Trust Fund. The Further Consolidated Appropriations Act, 2020, provided additional funding for the Patient-Centered Outcomes Research Trust Fund of the Department of Health and Human Services, and as a result, CBO increased its projections of outlays over the 2020–2029 period by \$8 billion.

Benefits for Mine Workers. Enacted as part of the Further Consolidated Appropriations Act, 2020, the Bipartisan American Miners Act of 2019 will increase federal spending on payments to the United Mine Workers of America (UMWA) Health and Retirement Funds over the 2020–2029 period by \$6 billion, CBO estimates. Of that amount, \$5 billion will go toward UMWA pension benefits, and about \$1 billion will pay for retirees' health benefits.

Military Retirement. The Consolidated Appropriations Act, 2020, increased the annuities that spouses of deceased military retirees receive under the Survivor Benefit Plan. That provision is projected to increase outlays over the 10-year period by \$5 billion.

Premium Tax Credits and the Basic Health Program. Primarily as a result of the repeal of the excise tax on employment-based health insurance plans with high premiums, CBO has lowered its projections of outlays for premium tax credits and the Basic Health Program over the 2020–2029 period by \$4 billion.⁴

Medicaid. CBO raised its projections of federal Medicaid spending over the 2020–2029 period by \$4 billion. That adjustment was the net result of several provisions, including one that increased the amount of federal assistance provided to the U.S. territories and one that increased the amount of rebates collected from

4. Premium tax credits are federal subsidies for health insurance purchased through the marketplaces established by the Affordable Care Act. The Basic Health Program allows states to establish a coverage program primarily for people with income between 138 percent and 200 percent of the federal poverty guidelines. To subsidize that program, the federal government provides states with funding equal to 95 percent of the subsidies for which those people would have been eligible if they had purchased coverage through a marketplace.

Table A-1.

Changes in CBO's Baseline Projections of the Deficit Since August 2019

Billions of Dollars

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total	
											2020–2024	2020–2029
Deficit in CBO's August 2019 Baseline	-1,008	-1,034	-1,159	-1,181	-1,151	-1,284	-1,274	-1,260	-1,479	-1,378	-5,533	-12,208
Legislative Changes												
Changes in Revenues	-34	-27	-28	-34	-36	-43	-46	-52	-57	-66	-159	-422
Changes in Outlays												
Mandatory outlays	5	5	1	2	2	3	3	2	2	2	14	26
Discretionary outlays												
Defense	6	5	4	4	4	4	4	4	4	4	23	42
Nondefense	3	-3	1	-4	-5	-4	-5	-5	-6	-8	-8	-37
Subtotal, discretionary	9	3	5	*	-2	-1	-1	-1	-2	-4	15	5
Debt service	*	1	2	3	4	5	7	8	10	12	10	53
Total Change in Outlays	14	9	8	4	4	8	8	9	9	10	39	83
Increase in the Deficit From Legislative Changes	-49	-35	-36	-38	-40	-50	-54	-61	-67	-75	-198	-505
Economic Changes												
Changes in Revenues												
Individual income taxes	36	33	34	32	29	24	17	12	6	*	164	223
Corporate income taxes	-16	-16	-14	-13	-12	-11	-11	-10	-9	-8	-71	-121
Payroll taxes	17	19	18	16	12	10	7	4	2	-1	83	106
Other	8	12	9	5	1	-1	-1	-2	-2	*	35	29
Total Change in Revenues	45	48	48	40	31	22	12	5	-3	-10	211	237
Changes in Outlays												
Mandatory outlays												
Social Security	-1	*	2	4	7	8	10	11	10	9	13	60
Unemployment compensation	-1	-3	-3	-4	-3	-2	-1	-2	-2	-2	-14	-23
Student loans	-1	-1	-1	-2	-2	-2	-1	-1	-1	-1	-7	-14
Earned income and child tax credits	-2	-2	-2	-2	-1	-1	-1	-1	-1	-1	-8	-13
Medicare	-1	-1	-1	-1	-1	*	-1	-1	-2	-3	-5	-12
Other	-1	-1	-1	*	1	2	3	3	2	2	-2	10
Subtotal, mandatory	-8	-8	-6	-3	1	6	8	8	7	4	-23	9
Discretionary outlays	*	3	4	5	6	7	7	7	7	7	18	53
Net interest												
Effect of interest rates and inflation	-15	-29	-38	-41	-44	-48	-52	-55	-58	-60	-168	-441
Debt service	*	-2	-4	-6	-8	-10	-12	-14	-16	-17	-21	-90
Subtotal, net interest	-15	-31	-42	-48	-53	-58	-64	-69	-73	-78	-189	-530
Total Change in Outlays	-23	-36	-44	-45	-45	-46	-49	-53	-59	-67	-194	-468
Decrease in the Deficit From Economic Changes	68	84	92	85	76	68	62	58	56	57	405	705

Continued

Table A-1.

Continued

Changes in CBO's Baseline Projections of the Deficit Since August 2019

Billions of Dollars

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total	
											2020– 2024	2020– 2029
Technical Changes												
Changes in Revenues												
Individual income taxes	-28	-20	-18	-11	-20	-25	-31	-29	-28	-26	-98	-237
Customs duties	5	7	11	12	12	11	11	10	10	10	46	98
Payroll taxes	4	5	6	8	9	11	11	12	13	13	32	91
Corporate income taxes	18	9	11	13	4	-3	-13	-5	-8	-9	55	16
Other	3	2	1	15	-8	5	7	8	26	14	12	72
Total Change in Revenues	1	3	11	36	-4	-2	-16	-4	13	1	47	40
Changes in Outlays												
Mandatory outlays												
Medicare	22	21	24	25	25	32	35	30	46	56	117	315
Veterans' benefits and services	2	6	7	7	7	8	8	8	8	6	29	67
Premium tax credits and related spending	-3	-4	-4	-5	-5	-6	-6	-6	-7	-7	-22	-52
Medicaid	6	7	6	5	5	4	3	2	2	1	28	39
PBGC	-3	-3	-3	-4	-4	-4	*	-2	-2	-1	-17	-27
Earned income and child tax credits	2	2	2	2	2	2	2	2	2	2	10	20
Social Security	-1	-2	-2	-2	-2	-2	-2	-2	-1	*	-10	-16
SNAP	-1	-1	-2	-2	-2	-1	-1	-2	-2	-2	-6	-15
Other	1	-7	-12	-15	-6	*	-3	-2	-4	-7	-39	-54
Subtotal, mandatory	24	19	15	12	20	32	35	28	42	48	90	275
Discretionary outlays	-3	-8	2	1	3	3	3	3	3	3	-5	11
Net interest												
Debt service	*	*	*	1	1	3	5	6	8	10	2	33
Other	7	6	7	8	8	8	9	9	9	10	36	81
Subtotal, net interest	7	6	7	8	10	11	13	15	17	20	38	114
Total Change in Outlays	28	18	24	21	33	46	51	46	62	71	123	400
Increase (-) or Decrease in the Deficit From Technical Changes	-27	-15	-13	15	-36	-48	-67	-50	-48	-70	-76	-360
All Changes												
Increase (-) or Decrease in the Deficit	-8	33	43	62	-1	-31	-59	-53	-59	-88	130	-160
Deficit in CBO's January 2020 Baseline	-1,015	-1,000	-1,116	-1,119	-1,152	-1,315	-1,333	-1,313	-1,538	-1,466	-5,402	-12,368
Memorandum:												
Changes in Revenues	12	24	31	43	-10	-22	-49	-52	-47	-74	99	-145
Changes in Outlays	20	-10	-12	-20	-9	8	10	1	12	14	-31	15
Increase (-) or Decrease in the Primary Deficit ^a	-16	9	10	26	-40	-72	-103	-99	-106	-134	-9	-523
Decrease in Net Interest	8	24	33	36	39	41	44	46	47	46	140	363

Source: Congressional Budget Office.

PBGC = Pension Benefit Guaranty Corporation; SNAP = Supplemental Nutrition Assistance Program; * = between -\$500 million and \$500 million.

a. Primary deficits exclude net outlays for interest.

manufacturers of brand-name drugs that also sell authorized generic versions of those drugs.

Discretionary Outlays. In response to recently enacted legislation, CBO increased its estimate of discretionary outlays in 2020 by \$9 billion and its projections of such outlays for the 2020–2029 period by \$5 billion, on net. The agency increased its projections of defense spending over the 10-year period by \$42 billion (or 0.5 percent), but it lowered its projections of nondefense spending over that period by \$37 billion (or 0.5 percent).

Because most discretionary funding is subject to the caps established by the Budget Control Act of 2011 (P.L. 112-25, as amended), legislative changes to CBO’s projections of that funding result chiefly from appropriations for programs and activities that are not constrained by the caps. Discretionary funding for certain activities is not constrained by the caps; the caps are adjusted to accommodate the funding provided for most of those activities. In particular, adjustments are made for all appropriations designated for overseas contingency operations (OCO) and emergency requirements. Subject to certain limits, additional adjustments are made for funding designated for disaster relief activities, some efforts to reduce overpayments in benefit programs, wildfire suppression, and (for this year only) activities related to the 2020 census.⁵ The agency’s August projections of funding for those activities were made on the basis of 2019 appropriations, so when 2020 funding was provided, CBO adjusted its projections to reflect differences between the actual and projected appropriation amounts.⁶

Defense funding for emergencies in 2020 is \$5 billion greater—and funding for OCO \$1 billion more—than CBO projected in August. As specified by law, that funding is assumed to grow with inflation over the 10-year projection period. Additionally, defense funding subject to the cap for 2020 was projected to be \$2 billion below the cap in August, but the actual appropriation for the year equaled the cap amount. Those changes result in a

\$42 billion increase in projected defense outlays between 2020 and 2029.

For the nondefense category, funding in 2020 for activities constrained by the caps is \$16 billion greater than previously projected, causing an increase in outlays in the short term.⁷ That increase in funding in 2020 does not affect projected funding for 2021 and later years. Funding for activities that are not constrained by the caps in 2020 is now estimated to be less, on net, than it was projected to be in August: CBO reduced its estimate of emergency funding by \$22 billion and increased funding for disaster relief, the census, wildfire suppression, and nondefense OCO by a total of \$10 billion. Extrapolating funding for the 10-year period from that net reduction in funding for the current year, CBO reduced its projections of nondefense outlays for 2020 to 2029 by \$37 billion.

Changes in Debt Service. Before debt-service costs are taken into account, the changes that CBO made to its projections to reflect legislation enacted since August 2019 increased the cumulative deficit for the 2020–2029 period by \$452 billion. The additional federal borrowing stemming from the larger annual deficits added \$53 billion to CBO’s projection of total outlays for interest on federal debt over that period.

Economic Changes

The economic forecast that underlies CBO’s baseline budget projections includes the agency’s projections of GDP, income, the unemployment rate, interest rates, inflation, and other factors that affect federal spending and revenues. The current projections are based on the latest economic forecast, which was completed in January 2020 and reflects the agency’s estimates of the effects on the economy of the Consolidated Appropriations Act, 2020, and the Further Consolidated Appropriations Act, 2020. The agency’s August 2019 budget projections were based on the economic forecast completed in July 2019.

The changes that CBO has made to its economic forecast have reduced its estimate of the deficit for 2020 by \$68 billion and its projections of deficits over the 2020–2029 period by a total of \$705 billion. Most of

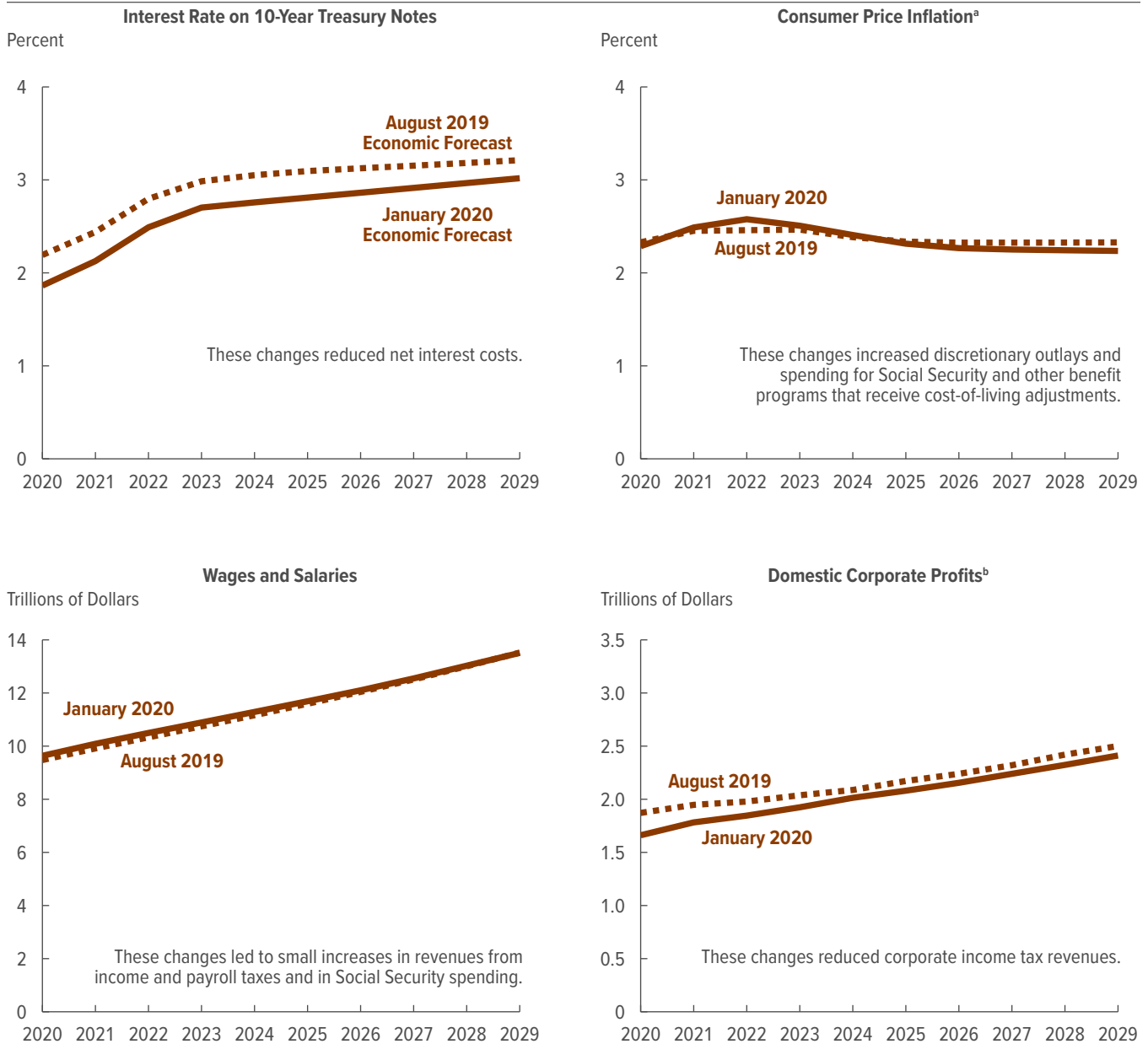
5. Obligation limitations for transportation programs also are not constrained by the caps on discretionary funding and are assumed to grow with inflation. For more information on the discretionary caps, see Congressional Budget Office, *Final Sequestration Report for Fiscal Year 2020* (January 2020), www.cbo.gov/publication/55995.

6. The caps on funding for wildfire suppression and activities related to the 2020 census went into effect in 2020.

7. Included in the enacted appropriation legislation were changes in mandatory programs (often referred to as CHIMPs) that were credited against discretionary budget authority, allowing lawmakers to increase discretionary funding in 2020 by \$16 billion.

Figure A-2.

Changes in CBO's Economic Forecast Since August 2019



Source: Congressional Budget Office.

a. The consumer price index for urban wage earners and clerical workers.

b. Adjusted to remove distortions in depreciation allowances caused by tax rules and to exclude the effects of changes in prices on the value of inventories.

that reduction results from a decrease in projected net interest outlays and an increase in projected revenues. Those budgetary effects are driven by changes in CBO's projections of interest rates, wages and salaries, inflation,

and corporate profits (see Figure A-2). For further explanation of the revisions to the agency's economic forecast, see "Comparison With CBO's August 2019 Projections" in Chapter 2.

Changes in Outlays

The revisions that CBO made to its economic forecast lowered its estimate of outlays for the current year by \$23 billion (or 0.5 percent) and decreased its projections of outlays for the 2020–2029 period by \$468 billion (or 0.8 percent). Most of the reduction in outlays projected for that period stems from the downward revision in the agency’s forecast of interest rates, which reduced its projections of net interest costs by \$441 billion before changes in debt-service costs are taken into account.

Mandatory Outlays. Because of changes the agency made to its economic forecast, CBO decreased its estimate of mandatory spending for 2020 by \$8 billion (or 0.3 percent) but increased its projections for the 2020–2029 period by \$9 billion (or less than 0.1 percent). The largest economic changes were in CBO’s projections of outlays for Social Security.

Social Security. Projected outlays for Social Security over the 2020–2029 period increased by a total of \$60 billion (or 0.4 percent) for two economic reasons. First, CBO increased its projections of average wages, which boosted projected Social Security benefits for new recipients over the 2020–2029 period by \$39 billion. (That increase in the agency’s projections of average wages also increased projected revenues from income taxes and payroll taxes; those increases are discussed below in the section on changes in revenues.) Second, CBO increased its estimates of the cost-of-living adjustments (COLAs) that beneficiaries will receive over the 10-year period, resulting in a \$21 billion increase in projected spending. Social Security’s COLAs are based on changes in the consumer price index for urban wage earners and clerical workers (CPI-W). To account for changes in its forecast of the CPI-W, CBO increased its projection of the annual COLA that beneficiaries will receive in January 2021 by 0.2 percentage points and each January from 2022 to 2024 by 0.1 percentage point. Those increases were partially offset by reductions of 0.1 percentage point in the COLA for 2028 and 2029.⁸

Unemployment Compensation. CBO lowered its projection of spending on unemployment compensation for the 2020–2029 period by \$23 billion (or

4.7 percent), primarily because it reduced its forecast of the unemployment rate for every year of that period.

Student Loans. CBO reduced its projection of the costs of student loans for the 2020–2029 period by a total of \$14 billion because it now forecasts lower interest rates on federal borrowing than it did in August. As prescribed by the Federal Credit Reform Act of 1990 (FCRA), CBO estimates the net cost to the federal government of student loans by first discounting the value of expected future payments of principal and interest on those loans to express the value of those payments in today’s dollars and then subtracting that present-value amount from the amount of the disbursed loans.⁹ Those present values are calculated using interest rates on federal borrowing as the discount rates.¹⁰ When those interest rates are reduced, the present value of future payments to the federal government increases, thus reducing the projected net cost of the loans. That reduction occurs even as the decrease in projected interest rates reduces the interest rates that students pay on their loans.

Earned Income and Child Tax Credits. CBO lowered its projections of outlays for the refundable portions of the earned income and child tax credits for the 2020–2029 period by \$13 billion (or 1.5 percent), on net, because the agency increased its forecasts of wages and salaries over most of the projection period. That reduction was partially offset by two other developments. First, upward revisions to the forecast of employment increased the projected number of hours worked, and refunds tend to rise along with hours worked. Second, inflation is now projected to be higher in some years than it was projected to be in August, and the refundable portions of the tax credits rise with inflation.

8. The 2020 COLA for Social Security beneficiaries is 1.6 percent. In CBO’s projections, the average annual COLA over the 2020–2029 period is 2.3 percent.

9. See Justin Humphrey, analyst, Congressional Budget Office, “How the Government Budgets for Student Loans” (presentation to the Postsecondary National Policy Institute, January 25, 2018), www.cbo.gov/publication/53511.

10. An alternative method would be to use market-based discount rates; such an approach is referred to as a fair-value method. The discount rate is higher under the fair-value method, so the value of future payments is lower—and the estimated costs of student loans are higher—than under the FCRA method. In CBO’s view, fair-value estimates provide a more comprehensive measure of the costs of student loans than do FCRA estimates. See Congressional Budget Office, *Fair-Value Estimates of the Cost of Federal Credit Programs in 2020* (May 2019), www.cbo.gov/publication/55278.

Medicare. CBO decreased its projections of Medicare spending for the 2020–2029 period by \$12 billion (or 0.1 percent) because of revisions it made to its economic forecast. Under current law, payment rates for much of Medicare's fee-for-service sector (such as hospital care and services provided by home health agencies and skilled nursing facilities) are updated automatically. Those updates are based on changes in the prices of the labor, goods, and services that health care providers purchase and include an adjustment to account for economywide gains in productivity (the ability to produce the same output using fewer inputs, such as hours of labor) that occur over a 10-year period. As a result of a small downward revision to certain input prices and a small upward revision to productivity, CBO now expects payment rates to increase by slightly smaller amounts between 2020 and 2029 than it had previously projected—a change that decreases projected Medicare outlays.

Other Mandatory Programs. The agency updated its projections of outlays for a number of other mandatory programs to reflect changes it made to its economic forecast; those changes resulted in both upward and downward adjustments to such outlays. On net, those changes increased projected outlays for the 2020–2029 period by a total \$10 billion.

Discretionary Outlays. CBO's baseline projections generally reflect the assumption that funding for discretionary programs keeps pace with inflation (unless such funding is constrained by statutory limits). Changes to the forecasts of the measures of inflation that CBO is required to use to develop its baseline projections of discretionary funding drove the economic changes in discretionary outlays. For discretionary funding related to federal personnel, the agency uses the employment cost index for wages and salaries to prepare its projections; for other types of discretionary funding, the agency uses the GDP price index. As a result of increases in the agency's forecasts of those measures, discretionary funding over the 2020–2029 period is now projected to be slightly higher than it was projected to be in August, and outlays for that period are now projected to be \$53 billion (or 0.3 percent) greater.

Net Interest. Economic changes have reduced CBO's baseline projections of net interest costs for the 2020–2029 period by \$530 billion (or 9.1 percent). The main reason for that reduction is that CBO has lowered its

forecasts of both short- and long-term interest rates on Treasury securities since August. CBO decreased its forecasts of interest rates for 2020 to 2029 by an average of 0.3 percentage points (or about 10 percent) each year. As a result of those reductions, CBO now projects that the average interest rate on debt held by the public for the period will be lower by roughly the same amount. Primarily because of the lower projected interest rates, the agency decreased its projections of net interest outlays (and thus of deficits) for the 2020–2029 period by \$441 billion (before the resulting change in the amount of federal debt is taken into account).

Those revisions continue the agency's long-term trend of revising its forecast of interest rates downward. Since the early 2000s, CBO's and other forecasters' projections of both short- and long-term interest rates have tended to be significantly higher than the actual rates.¹¹

Because of those changes and others stemming from revisions to CBO's economic forecast, deficits in CBO's projections for the 2020–2029 period were reduced by \$616 billion before accounting for the resulting changes in the amount of federal debt. The debt-service savings associated with those smaller projected deficits are estimated to total \$90 billion.

Changes in Revenues

As a result of revisions the agency made to its economic forecast, CBO increased its estimate of revenues for 2020 by \$45 billion (or 1.3 percent) and its projections for 2020 through 2029 by a total of \$237 billion (or 0.5 percent). The increases in projected revenues stem primarily from higher estimates of wages and salaries and of proprietors' income, which boosted projections of individual income and payroll taxes. The increases in individual income and payroll taxes were partially offset by decreases in projections of domestic corporate profits, which lowered projections of corporate income taxes.

Those changes attributable to economic factors stem in part from revisions made in July by the Bureau of Economic Analysis (BEA) to the national income and product accounts (NIPAs) for earlier years. Most significantly, BEA revised upward its estimates of wages and proprietors' income for 2018 and 2019 and revised

11. See Congressional Budget Office, *CBO's Economic Forecasting Record: 2019 Update* (October 2019), www.cbo.gov/publication/55505.

downward its estimates of corporate profits for those same years. Because the actual receipts in those years are already known, the changes to estimates of national income also led CBO to revise its estimates of average tax rates on those sources of income; those revisions, which are classified as technical changes and described in the corresponding section below, partially offset the economic changes.

Individual Income Taxes. Economic changes raised CBO's estimate of individual income taxes in 2020 by \$36 billion (or 2.0 percent) and its baseline projections of individual income tax revenues for the 2020–2029 period by a total of \$223 billion (or 1.0 percent). Those changes result primarily from the agency's raising its projection of wages and salaries for the 2020–2029 period by \$968 billion (or 0.8 percent).

Payroll Taxes. To reflect its latest economic projections, CBO raised its estimate of payroll tax revenues for 2020 by \$17 billion (or 1.4 percent) and its projections for the 2020–2029 period by \$106 billion (or 0.7 percent). Those changes are primarily the result of the increase in projected wages and salaries.

Corporate Income Taxes. CBO lowered its estimate of corporate income tax revenues for 2020 by \$16 billion (or 6.5 percent) and its projections for the 2020–2029 period by \$121 billion (or 3.4 percent) because of revisions to its economic forecast. The agency now anticipates that domestic corporate profits over the next decade will be \$1.1 trillion (or 5.3 percent) lower than they were projected to be in August. Such profits make up most of the corporate income tax base.

Other Revenues. To reflect its latest economic forecast, CBO raised its estimate of revenues from all other sources for 2020 by \$8 billion (or 2.8 percent) and its projections for the 2020–2029 period by \$29 billion (or 0.9 percent). That revision results mostly from an increase in projections of remittances from the Federal Reserve to the Treasury: The agency added \$10 billion (a 16.8 percent increase) to its estimate of such remittances for 2020 and a total of \$58 billion (an increase of 9.3 percent) to its projections for 2020 through 2029. That upward revision is the result of two changes to the agency's economic forecast—lower projected interest expenses and an increase in the amount of assets that the central bank is projected to purchase and hold.

Technical Changes

Technical changes—those that are neither legislative nor economic—increased CBO's estimate of the deficit in 2020 by \$27 billion and its projections of deficits over the 2020–2029 period by a total of \$360 billion. An increase in the agency's projections of Medicare spending accounts for most of that change.

Changes in Outlays

Because of technical updates—largely for mandatory spending programs—CBO increased its estimate of outlays in 2020 by \$28 billion (or 0.6 percent) and its projections for 2020 to 2029 by \$400 billion (or 0.7 percent).

Mandatory Outlays. Technical changes made by CBO increased its estimate of mandatory outlays in the current year by \$24 billion (or 0.9 percent) and its projections of such outlays for the 2020–2029 period by \$275 billion (or 0.8 percent).

Medicare. CBO estimates that net Medicare spending in 2020 will exceed the agency's previous projections of such spending by about \$22 billion (or 3.2 percent). The projections of net Medicare spending for the 2020–2029 period were revised upward by \$315 billion (or 3.3 percent), in part because outlays for fiscal year 2019 were higher than CBO projected and in part because outlays for 2020 are on track to grow faster than previously projected. Most of the increase in projected outlays over the 2020–2029 period results from using the higher 2020 value as the starting point for the 10-year projections of net Medicare spending.

Several factors led CBO to increase its estimate of Medicare spending in 2020. First, actual net outlays for Medicare in 2019 exceeded CBO's projection for the year by about \$8 billion (or 1.3 percent); higher spending for Medicare Advantage (MA) accounts for most of that difference.¹² Second, in August 2019, CBO increased its projection of outlays for MA only for 2019 because at the time, the agency thought that the higher-than-expected spending was driven by one-time payments that would not affect spending in future years. On the basis of additional spending data, CBO now anticipates that spending for MA will be higher

12. Medicare Advantage provides combined hospital and medical insurance for beneficiaries. (Traditional Medicare provides those benefits under Parts A and B.)

than previously projected in 2020 and later years. Third, the increase in MA payment rates in 2020 that was announced earlier this year was larger than CBO had projected. Finally, CBO now expects that, on average, MA beneficiaries will be coded as being in poorer health than the agency previously anticipated.

Veterans' Benefits and Services. CBO increased its projections of outlays for mandatory veterans' benefits for the 10-year period by \$67 billion (or 4.8 percent); that increase is the net effect of partially offsetting changes in projections of outlays for three types of benefits. First, CBO increased its projections of outlays for veterans' compensation and pensions by \$75 billion. That change stems from recent data showing that average payments for disability compensation are rising faster than previously projected and that the number of new veterans qualifying for disability compensation is greater than previously projected. Both the average severity of beneficiaries' disabilities and the number of veterans with disabilities connected to their service have increased at faster rates than CBO had projected. The more severe veterans' injuries and illnesses are, the greater the disability compensation payments.

Second, CBO reduced its projections of spending for educational and vocational benefits for veterans (often referred to as readjustment benefits) for the 2020–2029 period by \$15 billion, primarily because the agency reduced its estimates of the number of beneficiaries of the Post-9/11 GI Bill to account for recent trends in that beneficiary population.

Third, projected outlays on home loan guarantees provided by the Department of Veterans Affairs (VA) over the next decade were revised upward by \$7 billion because CBO has increased its projections of the future volume of such loans. The volume of loans has consistently been higher than projected since the housing recovery began in 2012, and in response CBO has boosted its loan-volume projections. In addition, because CBO now anticipates that more veterans will have disabilities connected to their service and because veterans with such disabilities are exempt from the fees that VA charges to guarantee loans, CBO projects that a greater proportion of future loans will be exempt from those fees, increasing projected outlays for the program.

Premium Tax Credits and Related Spending. CBO and JCT reduced their projections of outlays for premium

tax credits and related spending over the 2020–2029 period by \$52 billion (or 8.1 percent), on net.¹³ The current projections reflect lower projected premiums for health insurance purchased through the marketplaces established by the Affordable Care Act. The projection of premiums was revised downward because actual premiums for 2020 were about 10 percent lower than anticipated, and CBO expects that premiums will continue to be lower than previously projected by about the same percentage.

Medicaid. CBO's 10-year projection of federal spending for Medicaid is \$39 billion (or 0.7 percent) higher than it was in August 2019, primarily because actual spending in 2019 was greater than anticipated and CBO expects that spending will be higher by a similar percentage in future years.

Pension Benefit Guaranty Corporation. CBO decreased its projections of outlays for the Pension Benefit Guaranty Corporation (PBGC) over the next decade by \$27 billion, primarily because of an increase in projected receipts from variable-rate premiums. (Variable-rate premiums are charged to single-employer pension plans that are considered underfunded; such premiums increase as the amount of underfunding increases.) Premium payments are classified as offsetting receipts and have the effect of reducing outlays. That revision was made because the actual October 2019 premium payments, which make up the bulk of fiscal year 2020 receipts, were substantially higher than projected, and CBO expects that those receipts will be higher throughout the 2020–2029 period.

Earned Income and Child Tax Credits. Projected outlays for the earned income and child tax credits for the 10-year period were increased by \$20 billion (or 2.3 percent), primarily because actual outlays for those tax credits were higher in 2019 than projected and CBO expects outlays in future years to exceed its previous projections by a similar percentage.

Social Security. Projected outlays for Social Security over the 2020–2029 period were revised downward by \$16 billion (or 0.1 percent), on net, because of two partially offsetting revisions. CBO decreased its projections of Disability Insurance benefits by \$47 billion

13. Related spending consists almost entirely of outlays for risk adjustment and the Basic Health Program.

(or 2.6 percent) to reflect reductions in the projected number of recipients and in the projected average benefit amount; those reductions were made on the basis of an analysis of recent trends. Partially offsetting the decrease in projected Disability Insurance benefits was an upward revision of \$30 billion in CBO's projections of Old-Age and Survivors Insurance benefits, which reflects an increase in the projected number of beneficiaries. Most of that increase stems from CBO's revising upward its projection of the growth rate of the elderly population.

Supplemental Nutrition Assistance Program. CBO reduced its projections of outlays for the Supplemental Nutrition Assistance Program (SNAP, which helps people in low-income households purchase food) over the 10-year period by \$15 billion, in large part because the Administration finalized one rule and proposed two additional rules that CBO projects would reduce outlays for the program. CBO's baseline projections incorporate the full estimated effects of the final rule, which CBO expects will reduce eligibility for SNAP by limiting states' ability to grant waivers from work requirements for able-bodied adults who do not have dependents. CBO's baseline projections also incorporate a 50 percent probability that the two proposed rules—which would reduce eligibility for the program and average benefits for SNAP recipients—will be finalized in their proposed form. One of those rules would limit states' ability to raise income and asset thresholds through broad-based categorical eligibility, and the other would establish a consistent method for calculating the standard utility allowances used to determine SNAP benefits.¹⁴

Other Mandatory Programs. Smaller technical changes decreased CBO's projections of outlays for other mandatory programs over the 2020–2029 period by \$54 billion.

Discretionary Outlays. Technical updates reduced CBO's estimate of discretionary outlays in 2020 by \$3 billion (or 0.2 percent) and increased its projections of such outlays over the 2020–2029 period by \$11 billion (or 0.1 percent). Those changes stem from adjustments made to better reflect the recent rates at which

funding for various discretionary programs has been spent.

Net Interest. Technical changes increased CBO's projections of net interest outlays for the 2020–2029 period by \$114 billion (or 2.0 percent), on net. That increase stems largely from three sources. First, on the basis of recent debt issuance, CBO increased its projection of the average maturity of newly issued debt. Because longer-term debt carries higher interest rates, that change added \$66 billion to the agency's projections of interest costs over the 10-year period. Second, technical changes to revenues and other outlays boosted projected deficits by \$327 billion, and the resulting increase in debt-service costs added a total of \$33 billion to projected deficits over the period. Third, CBO reduced its estimate of interest earnings from credit-financing accounts by \$17 billion to better reflect recent trends in actual earnings. Credit-financing accounts, which are not included in the federal budget, track the cash flows of the federal government's various loan programs. To provide loans to borrowers, the accounts often borrow from the Treasury and then pay interest back to the Treasury. Those interest earnings are classified as offsetting receipts, or negative outlays; thus, a decrease in earnings is classified as an increase in outlays.

Changes in Revenues

Technical changes increased CBO's estimate of revenues in 2020 by \$1 billion (or less than 0.1 percent) and its projections for the entire 2020–2029 period by \$40 billion (or 0.1 percent).

Individual Income Taxes. Technical revisions reduced the agency's estimate of individual income tax receipts in 2020 by \$28 billion (or 1.6 percent) and its projections of such receipts for the 2020–2029 period by \$237 billion (or 1.0 percent). The most significant reason for that reduction is that the agency revised downward its projections of high-wage earners' share of total wages and salaries on the basis of data for recent years that continue to show a smaller-than-expected share of earnings accruing to high-wage earners. When that share is smaller, individual income tax revenues fall because people with less income are subject to lower income tax rates. To account for that revision, CBO lowered its projections of individual income tax receipts over the next decade by about \$180 billion.

In addition, recent revisions made by BEA to past years' NIPAs resulted in technical revisions to projections of

14. After the final version of a rule is promulgated, CBO incorporates the full effects of the final rule in subsequent cost estimates and baseline projections. For a discussion of how CBO accounts for anticipated administrative actions in its baseline projections, see Congressional Budget Office, letter to the Honorable John M. Spratt Jr. (May 2, 2007), www.cbo.gov/publication/18615.

individual income tax receipts for the first few years of the period. BEA revised upward its estimates of wages and proprietors' income for 2018 and 2019, which boosted CBO's projections of those sources of income in future years and resulted in the economic revisions reported above. However, because actual receipts of individual income taxes in those past years were already known, the revisions to income imply that average tax rates in those years were lower than previously estimated, leading CBO to revise downward its estimates of average tax rates on those two sources of income over the next several years.

Customs Duties. The agency increased its projections of customs duties over the next decade by a total of \$98 billion for technical reasons. That change reflects actions that the Administration took to impose tariffs on a broader range of imports from China.¹⁵ In addition, new tariffs went into effect on civilian aircraft and certain other products imported from certain European Union countries. CBO's projections incorporate the assumption that the tariffs in place as of January 7, 2020 (the day that the economic forecast was completed), will continue permanently, without any changes.

Payroll Taxes. Technical revisions increased CBO's estimate of payroll tax revenues in 2020 by \$4 billion (or 0.3 percent) and its projections of such taxes for the 2020–2029 period by \$91 billion (or 0.6 percent). As with individual income taxes, the change largely stems from the downward revision in high-wage earners' projected share of total wages and salaries. Because the share of wages and salaries going to high-wage earners is projected to be smaller, the share going to people whose annual earnings are below the maximum amount subject to Social Security payroll taxes (currently \$137,700) is now projected to be larger. The resulting increase in projected payroll taxes for the next decade totals about \$130 billion, partially offsetting the corresponding \$180 billion reduction in projected individual income taxes.

15. On September 1, 2019, the Administration imposed tariffs at a rate of 15 percent on approximately \$120 billion of Chinese imports. On January 15, 2020, the United States and China signed a new trade agreement, and the Administration announced that those tariffs will be reduced to 7.5 percent on February 14, 2020. Neither the planned changes to trade policy included in that agreement nor changes to tariffs imposed after January 7, 2020, are included in CBO's current baseline projections.

Additionally, to account for BEA's upward revisions to its estimates of wages and proprietors' income in past years, CBO revised downward its estimates of average payroll tax rates on those two sources for the next several years, partially offsetting the economic revisions to payroll taxes discussed above.

Corporate Income Taxes. CBO raised its estimate of corporate income tax revenues in 2020 by \$18 billion (or 7.4 percent) and its projections for the 2020–2029 period by \$16 billion (or 0.4 percent) for technical reasons. Those increases reflect the offsetting effects of changes stemming from updated historical tax and economic data and new information about some changes enacted in the 2017 tax act.

Revised Average Tax Rates. CBO revised upward its estimates of average corporate tax rates for the next several years, increasing projected receipts for the 2020–2029 period by roughly \$150 billion (or 4.3 percent). The upward revision in rates results from new information that helps explain the lower-than-projected corporate tax receipts in recent years. Most significantly, in late July, BEA revised downward its estimate of domestic corporate profits for calendar year 2017 by 6 percent, its estimate for 2018 by 12 percent, and its estimate for the first half of 2019 by 14 percent. Because those revisions do not change actual tax receipts for those years, CBO revised upward its estimates of the average tax rates on corporate profits to account for BEA's lower estimates of domestic corporate profits. (That revision partially offsets the downward economic revisions resulting from lower projected corporate profits that were discussed above.)

Revised Effects of the 2017 Tax Act. The increase in CBO's projections of corporate tax revenues resulting from the revised estimates of average tax rates was largely offset by revisions to projected revenues related to certain provisions of the 2017 tax act, which reduced projected receipts for the 2020–2029 period by roughly \$110 billion (or 3.2 percent), on net.¹⁶ Most significantly, CBO reduced its projection of the amount of income subject to tax under certain provisions related to international business activities. Those changes, which lowered corporate receipts, reflect the implementation of the law (including regulations announced by the Internal Revenue Service over the past year), new tax and

16. For a discussion of the tax provisions included in the 2017 tax act, see Congressional Budget Office, *The Budget and Economic Outlook: 2018 to 2028* (April 2018), pp. 108–110, www.cbo.gov/publication/53651.

financial reporting data, and updated information on taxpayers' responses.¹⁷

17. For an overview of the changes in the international tax system, see Jane G. Gravelle and Donald J. Marples, *Issues in International Corporate Taxation: The 2017 Revision* (P.L. 115-97), Report for Congress R45186 (Congressional Research Service, August 23, 2019), <https://go.usa.gov/xdYC8>. For the announcement of the new regulations, see Department of the Treasury, "Treasury and IRS Issue Proposed and Final Guidance on Foreign Tax Credits and the Base Erosion and Anti-Abuse Tax to Continue Modernizing the US Tax System" (press release, December 2, 2019), <https://home.treasury.gov/news/press-releases/sm840>. For a discussion of new tax and financial reporting data, see Molly Saunders-Scott and Jennifer Shand, analysts, Congressional Budget Office, "Reconciling Data on Transition Tax Payments: An Examination of Tax, Economic, and Financial Sources" (presentation at the 112th Annual Conference on Taxation, National Tax Association, November 21, 2019), www.cbo.gov/publication/55873. For information on how taxpayers may respond to the international changes, see Michael Donohoe, University of Illinois at Urbana-Champaign; Gary McGill, University of Florida; and Edmund Outslay, Michigan State University, "Has TCJA Changed the Geometry of International Tax Planning: A Riff on Circles, Squares, and Triangles" (presentation at the 49th Annual Spring Symposium Program, National Tax Association, May 16, 2019), <https://tinyurl.com/sfa2kq9>.

The technical changes also include modeling adjustments made to better reflect the agency's updated economic projections. For example, to better align its revenue projections with expectations for future business investment, CBO improved its modeling related to the rule in the 2017 tax act requiring that research and experimentation expenditures be capitalized and amortized over five years; that change in the agency's model raised corporate receipts in CBO's projections beginning in 2022. As new information becomes available, CBO continues to revisit its estimates of the corporate tax base since the changes made by the 2017 tax act took effect.

Other Revenues. CBO increased its projections of other revenues over the next decade by \$72 billion because of technical changes. That increase is primarily the result of larger remittances paid by the Federal Reserve to the Treasury. CBO raised its projections of such remittances over the next decade by \$52 billion. That technical change included a modeling adjustment to better reflect the interest earnings on Treasury securities with longer maturities held by the Federal Reserve.