
Chapter 4: The Revenue Outlook

Overview

The Congressional Budget Office projects that if current laws generally remain unchanged, federal revenues will continue the strong growth seen last year and will rise by 19 percent in 2022, to \$4.8 trillion. The strong revenue growth in 2021 and 2022 results mostly from large increases in collections of individual income taxes. Total revenues in 2022 are projected to equal 19.6 percent of the nation's gross domestic product (GDP)—the largest annual revenues relative to the size of the economy since 2000 (see Figure 4-1).

From 2023 to 2025, revenues are projected to decline as a percentage of GDP as temporary factors that have boosted tax receipts in recent years fade away. In 2026 and 2027, by contrast, revenues are projected to rise relative to GDP because of changes to rules governing the individual income tax that are scheduled to occur at the end of calendar year 2025.

Over the past 50 years, revenues have ranged between 14.5 percent and 20.0 percent of GDP, averaging 17.3 percent. In CBO's baseline projections, which generally reflect the continuation of current laws, revenues remain above that average throughout the next 10 years.

Key Factors Driving Projected Changes in Revenues

Despite the economic disruptions resulting from the coronavirus pandemic, federal revenues declined by only 1 percent in 2020, to a total of \$3.4 trillion (or 16.3 percent of GDP). With the economic recovery and the expiration of temporary provisions enacted in response to the pandemic, revenues grew sharply in 2021—by 18 percent—to a total of \$4.0 trillion (or 18.1 percent of GDP). On the basis of receipts recorded through late April 2022, CBO anticipates that revenues will rise by an additional 19 percent this year.

Revenues are projected to keep growing in dollar terms over the next few years. But that growth rate (about 1 percent a year) is expected to be slower than the growth of the economy, causing revenues to decline from 19.6 percent of GDP in 2022 to 17.6 percent in

2025. In CBO's estimation, some of the factors behind the recent jump in individual income tax receipts will dissipate. In addition, net income of the Federal Reserve System, which is remitted to the Treasury and counted as revenue, is projected to decline because of rising interest rates and changes in the central bank's portfolio of assets.

After 2025, revenues are projected to increase again relative to GDP, following the scheduled expiration of many temporary provisions of the 2017 tax act (Public Law 115-97). Revenues are then projected to remain relatively stable from 2027 to 2032, totaling 18.2 percent of GDP in 2032 (the end of CBO's current baseline projection period).

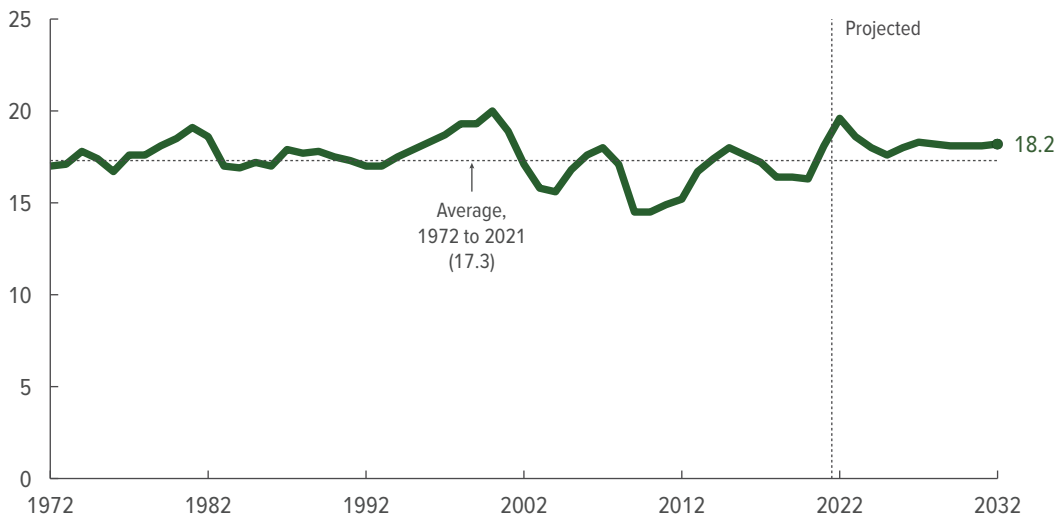
Those projected changes in total revenues over the next decade reflect the following shifts in various sources of revenues:

- Individual income tax receipts are projected to decline as a share of GDP over the next few years because of the expected dissipation of some of the factors that caused their recent surge. For example, realizations of capital gains (profits from selling assets that have appreciated in value) are projected to decline from the high levels of the past two years to a more typical level relative to GDP. Subsequently, from 2025 to 2027, individual income tax receipts are projected to rise sharply because of changes to tax rules set to occur at the end of calendar year 2025. After 2027, those receipts remain at or slightly below the 2027 level relative to GDP.
- Corporate income tax receipts are projected to rise from 1.6 percent of GDP this year to 1.8 percent in 2024 and then decline gradually to 1.4 percent of GDP in 2032. That pattern reflects several factors, including the expectation that some of the recent strength in corporate tax collections is temporary, a projected decline in corporations' domestic economic profits relative to GDP during the 2022–2032 period, and the effects of scheduled changes to tax rules, which initially increase corporate tax receipts but have varying effects over time.

Figure 4-1.

Total Revenues

Percentage of GDP



Total revenues as a share of GDP are expected to reach 19.6 percent this year—their highest level in two decades. Revenues are projected to remain above their 50-year average of 17.3 percent of GDP throughout the next decade.

Data source: Congressional Budget Office. See www.cbo.gov/publication/57950#data.

GDP = gross domestic product.

- Receipts from all other sources, on net, are projected to decline from 7.4 percent of GDP this year to 7.0 percent of GDP in 2032. Revenues from payroll taxes, remittances from the Federal Reserve, excise taxes, and customs duties are all projected to be slightly lower as a share of the economy in 2032 than this year, whereas estate and gift taxes are projected to increase relative to GDP.

Besides the factors discussed above, CBO's baseline projections of tax receipts also depend on projected funding for the Internal Revenue Service (see Box 4-1).

Changes in CBO's Revenue Projections Since 2021

CBO's current revenue projections are higher than its previous projections, which were released in July 2021. At that time, CBO published revenue projections for the 2021–2031 period; the projections in this report cover the 2022–2032 period. For the overlapping years—2022 to 2031—CBO's projection of cumulative revenues over that decade has increased by \$3.4 trillion, or 7 percent. Annual revenues are now projected to be higher by 0.4 percent of GDP, on average.

Most of that increase stems from changes in CBO's economic forecast, primarily its projections of GDP and

the types of income that make up GDP, such as wages and salaries, corporate profits, and proprietors' income. Technical revisions to CBO's revenue forecast have also had the net effect of boosting projected revenues. (For more information about those changes, see Appendix A.)

Revenues Forgone Because of Tax Expenditures

In the federal tax system, various exclusions, deductions, credits, and preferential rates cause revenues to be lower than they would be otherwise given the underlying structure of tax rates. Many of those provisions are called tax expenditures because they resemble federal spending and contribute to the budget deficit.

Tax expenditures have a major impact on the federal budget. For example, the more than 200 tax expenditures in the income tax system will total 8.3 percent of GDP in 2022, CBO estimates (including their effects on individual income, payroll, and corporate income taxes). That amount equals 42 percent of all federal revenues expected to be collected in 2022.

Uncertainty of CBO's Revenue Projections

Revenue projections are inherently uncertain. CBO constructs its projections to be consistent with the agency's economic forecast, which is intended to fall in the middle of the range of likely outcomes for the economy.

Box 4-1.

How Funding for the Internal Revenue Service Affects CBO's Baseline Projections of Revenues

The Internal Revenue Service (IRS) collects nearly all federal revenues, largely through taxpayers' voluntarily reporting their income, calculating the amount they owe, and remitting that amount to the IRS. In addition, through its audits and other enforcement actions, the IRS collects a portion of the taxes not paid voluntarily. Changes in the ability of the IRS to collect tax receipts, through either voluntary or enforced compliance, affect federal revenues.

The Congressional Budget Office's baseline revenue projections take into account CBO's expectations about the IRS's ability to collect revenues in the future. For instance, CBO's current baseline reflects the assessment that voluntary tax compliance is unlikely to change much in the next 10 years—consistent with the IRS's estimates that the share of tax liability that is paid voluntarily and on time has remained fairly stable over the past several decades.¹

Moreover, CBO projects that revenues from the IRS's enforcement activities will vary with the amounts appropriated for enforcement of tax laws. The direct impact of enforcement activities on revenues is measured by the amounts of "back taxes" paid on a previous year's tax liability. If the IRS's budget is small in relation to its past funding, CBO's projection of the back taxes received for a given amount of tax liability declines.

Appropriations to the IRS for 2022 are larger than CBO projected in its July 2021 baseline, increasing projected revenues from enforcement activities. The Consolidated Appropriations Act, 2022 (Public Law 117-103), provided the IRS with \$12.6 billion for 2022, an increase of 5.7 percent over its 2021 budget. That increase is reflected in CBO's baseline projections of federal spending as well as of revenues from back taxes. Because

the IRS's budget is still small relative to historical funding, the ratio of back taxes to tax liability is projected to decline over the 2022–2032 period.²

The IRS faces near-term challenges that could affect its ability to collect revenues. Disruptions stemming from the coronavirus pandemic have reduced the agency's capacity to process incoming mail and have resulted in backlogs of tax returns and taxpayer correspondence. Current staffing difficulties have led the IRS to reassign workers at processing centers to clear the inventory of correspondence. The agency's workload also grew during the pandemic: The IRS was responsible for administering three rounds of economic impact payments and an expanded child tax credit with an advanceable payment.³ As of early 2022, there had not been a sharp drop in collections of back taxes because of slowdowns in enforcement during the pandemic.

The IRS also faces longer-term challenges and risks that could affect revenue collections. One risk is a potential decline in the rate of voluntary compliance. Such a decline could result from reductions in customer service, as taxpayers who want to comply with tax laws struggle to understand their liability, or from reductions in enforcement, which could change the likelihood of penalties for noncompliance. Another risk is that the IRS will again be given added responsibilities without sufficient additional funding, which could reduce the effectiveness of taxpayer services and enforcement for a given level of funding.

1. For more information about the IRS's estimates of voluntary compliance, see Internal Revenue Service, "The Tax Gap" (November 2, 2021), www.irs.gov/newsroom/the-tax-gap.

2. For more about how the IRS's funding for enforcement activities has changed over time, see Congressional Budget Office, *Trends in the Internal Revenue Service's Funding and Enforcement* (July 2020), www.cbo.gov/publication/56422.

3. The economic impact payments were provided by the Coronavirus Aid, Relief, and Economic Security (CARES) Act of 2020 (P.L. 116-136), the Consolidated Appropriations Act, 2021 (P.L. 116-260), and the American Rescue Plan Act of 2021 (P.L. 117-2). That third law also established the expanded child tax credit.

CBO's revenue projections have been too high, on average, in recent decades, mainly because of the difficulty of forecasting the timing and nature of economic downturns. Since 1982, the mean absolute error of CBO's revenue projections (the average of all errors, without regard for whether they were positive or negative) was about 5 percent for projections made for the coming year and 10 percent for projections made for the sixth year. (The overall accuracy of those projections has been similar to that of projections produced by the Administration.)

Past and Projected Changes in the Composition of Revenues

Federal revenues come from many sources: taxes on individual income, payroll taxes (which are dedicated to certain social insurance programs), taxes on corporate income, excise taxes on the production or purchase of some goods and services, earnings of the Federal Reserve System, customs duties on certain imports, estate and gift taxes, and miscellaneous fees and fines.

Individual income taxes are the largest source of federal revenues (see Figure 4-2). Over the past 50 years, they have contributed an average of 46 percent of annual revenues (equal to 8.0 percent of GDP). Payroll taxes—mainly for Social Security and Medicare Part A (the Hospital Insurance program)—are the second-largest source of revenues, contributing an average of 34 percent of annual revenues (equal to 6.0 percent of GDP) over that period. Corporate income taxes have provided 10 percent of revenues (1.8 percent of GDP), on average, and all other sources combined have provided about 9 percent of revenues (1.6 percent of GDP).

Although that broad picture has remained roughly the same over the past five decades, the details have varied:

- Receipts from individual income taxes have fluctuated significantly over the past 50 years, ranging from 42 percent to 51 percent of annual revenues (and from 6.0 percent to 9.9 percent of GDP). Those fluctuations, which show no consistent trend over time, are attributable to changes in laws and in the economy.
- Receipts from payroll taxes rose as a share of revenues from the 1960s through the 1980s. The main reasons were an expansion of payroll taxes to finance Medicare and legislated increases in tax rates for Social Security and in the amount of income to which those taxes applied. By the late 1980s, payroll

tax receipts accounted for 37 percent of annual revenues (and 6.5 percent of GDP). Since 2001, those receipts have decreased slightly relative to the size of the economy, averaging 6.0 percent of GDP. That period includes two years (2011 and 2012) when receipts fell because of temporary cuts in some payroll tax rates.

- Receipts from corporate income taxes declined as a share of annual revenues (and also relative to GDP) from the 1960s to the early 1980s, mainly because corporate profits fell relative to the size of the economy. Corporate tax receipts have fluctuated widely since then, with no consistent trend, because of changes in laws and in the economy.
- Revenues from other sources, particularly excise taxes, have gradually declined as a share of annual revenues (and also relative to GDP). That downward trend has reversed in the past several years, however, because of increases in remittances from the Federal Reserve and in receipts from fees and fines.

If current tax laws generally remained in effect over the next decade—an assumption underlying CBO's baseline revenue projections—individual income taxes would continue to account for most of the fluctuations in annual revenues through 2032. Nevertheless, those receipts would remain well above 8.0 percent of GDP, their average size over the past 50 years. Individual income tax receipts are projected to total 10.6 percent of GDP in 2022, decline to 9.0 percent of GDP in 2025, and then rise to 9.8 percent of GDP in 2032.

Receipts from payroll taxes are projected to remain relatively stable over the next decade at 5.9 percent to 6.0 percent of GDP. Corporate income taxes are projected to range between 1.4 percent and 1.8 percent of GDP over the 2022–2032 period, averaging 1.5 percent. Taken together, all other sources of revenue are projected to average 1.1 percent of GDP during that period.

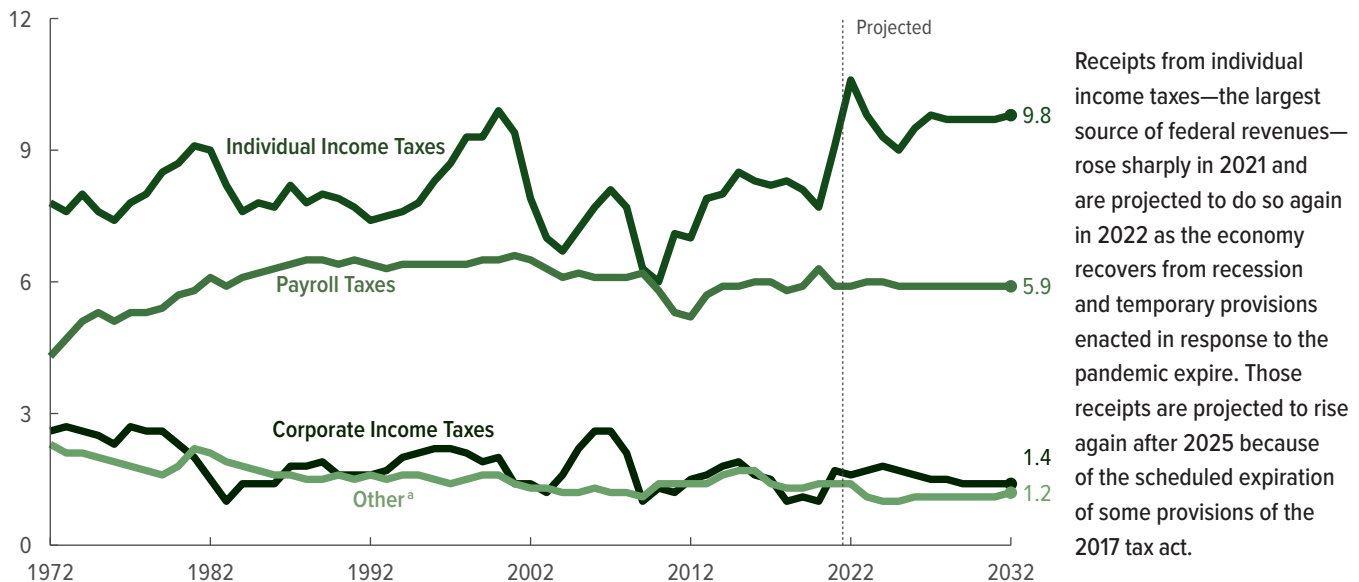
Individual Income Taxes

In 2021, receipts from individual income taxes totaled \$2.0 trillion, or 9.1 percent of GDP. Under current law, and on the basis of receipts observed through late April of this year, CBO expects individual income tax receipts to rise by 28 percent in 2022, to \$2.6 trillion. At 10.6 percent of GDP, that total is expected to be the highest amount of individual income tax receipts recorded since 1913, when ratification of the Sixteenth

Figure 4-2.

Revenues, by Category

Percentage of Gross Domestic Product



Data source: Congressional Budget Office. See www.cbo.gov/publication/57950#data.

a. Consists of excise taxes, remittances from the Federal Reserve System, customs duties, estate and gift taxes, and miscellaneous fees and fines.

Amendment authorized the federal government to begin collecting income taxes.

About one-third of this year's jump in individual income tax receipts results from growth in the economy and in the types of income that make up GDP, especially wages and salaries. Both nominal GDP (output not adjusted to remove the effects of inflation) and wages are expected to rise by 10 percent in 2022.

In CBO's estimation, another one-third of the growth in receipts in 2022 results from the end of temporary provisions enacted in response to the pandemic. One of those provisions allowed employers to defer payment of a portion of certain payroll taxes in 2020 and 2021. The payment of half of those deferred taxes, combined with the end of other temporary provisions, has boosted receipts in 2022.¹

1. Although some of those provisions affect payroll taxes, they will not change the amounts of payroll taxes credited to the Social Security and Railroad Retirement trust funds. The effects of those provisions are being recorded in the budget as reductions in individual income tax collections.

The remaining growth in individual income taxes this year cannot yet be explained. Tax collections in both 2020 and 2021 were larger than the currently available data on economic activity would suggest. That unexplained gap has widened in 2022. CBO will evaluate the reasons for the discrepancy as more detailed information from tax returns becomes available for those years.

Over the coming decade, if current laws remained unchanged, individual income tax receipts would decline to 9.8 percent of GDP in 2032, CBO projects, 0.9 percentage points lower relative to GDP than in 2022 (see Table 4-1). That projected decline in individual income tax receipts as a share of the economy over 10 years reflects offsetting factors. Scheduled changes in tax law after 2025 and real bracket creep (explained below) are projected to increase receipts relative to GDP over the decade. But those changes are more than offset by factors expected to reduce receipts, including a decline in realizations of capital gains and other types of taxable income and the expected dissipation of the recent unexplained strength in receipts.

Table 4-1.

CBO's Baseline Projections of Revenues

	Actual, 2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total	
													2023– 2027	2023– 2032
In Billions of Dollars														
Individual Income Taxes	2,044	2,623	2,579	2,542	2,539	2,771	2,970	3,049	3,170	3,301	3,436	3,582	13,400	29,938
Payroll Taxes	1,314	1,465	1,572	1,625	1,669	1,726	1,786	1,853	1,923	1,995	2,072	2,150	8,378	18,372
Corporate Income Taxes	372	395	456	478	483	473	457	461	470	480	491	505	2,347	4,755
Other														
Excise taxes	75	88	90	94	93	93	93	93	94	94	95	96	462	934
Federal Reserve remittances	100	111	30	20	32	47	56	65	76	87	98	111	185	622
Customs duties	80	95	99	100	101	102	103	104	105	107	109	110	505	1,040
Estate and gift taxes	27	29	29	28	28	29	43	46	49	52	56	60	156	418
Miscellaneous fees and fines	34	32	34	38	37	39	41	44	47	45	46	47	190	419
Subtotal	317	354	283	279	290	310	336	352	370	385	403	424	1,498	3,433
Total	4,047	4,836	4,890	4,924	4,982	5,280	5,548	5,716	5,934	6,161	6,402	6,662	25,623	56,498
On-budget	3,095	3,782	3,754	3,737	3,753	4,008	4,229	4,347	4,514	4,689	4,875	5,078	19,481	42,984
Off-budget ^a	952	1,054	1,136	1,186	1,228	1,272	1,320	1,369	1,420	1,472	1,527	1,584	6,142	13,514
Memorandum:														
Gross Domestic Product	22,365	24,694	26,240	27,291	28,271	29,266	30,332	31,487	32,716	33,996	35,318	36,680	141,400	311,596
As a Percentage of Gross Domestic Product														
Individual Income Taxes	9.1	10.6	9.8	9.3	9.0	9.5	9.8	9.7	9.7	9.7	9.7	9.8	9.5	9.6
Payroll Taxes	5.9	5.9	6.0	6.0	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
Corporate Income Taxes	1.7	1.6	1.7	1.8	1.7	1.6	1.5	1.5	1.4	1.4	1.4	1.4	1.7	1.5
Other														
Excise taxes	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Federal Reserve remittances	0.4	0.4	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.1	0.2
Customs duties	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
Estate and gift taxes	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1
Miscellaneous fees and fines	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Subtotal	1.4	1.4	1.1	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.1
Total	18.1	19.6	18.6	18.0	17.6	18.0	18.3	18.2	18.1	18.1	18.1	18.2	18.1	18.1
On-budget	13.8	15.3	14.3	13.7	13.3	13.7	13.9	13.8	13.8	13.8	13.8	13.8	13.8	13.8
Off-budget ^a	4.3	4.3	4.3	4.3	4.3	4.3	4.4	4.3	4.3	4.3	4.3	4.3	4.3	4.3

Data source: Congressional Budget Office. See www.cbo.gov/publication/57950#data.

a. Receipts from Social Security payroll taxes.

Scheduled Increases in Individual Income Taxes After 2025

At the end of calendar year 2025, nearly all of the changes to the individual income tax made by the 2017 tax act are set to expire. That scheduled expiration (which is considered part of current law in CBO's baseline) is the most significant factor pushing up tax revenues relative to income over the next 10 years. The provisions that are scheduled to change will result in higher statutory tax rates, a smaller standard deduction, the return of personal exemptions, and a reduction in

the child tax credit. Those changes would cause tax liabilities (the amount taxpayers owe) to rise in calendar year 2026, boosting receipts in subsequent fiscal years. CBO projects that the scheduled changes to those tax provisions would boost annual receipts from individual income taxes relative to GDP by 0.8 percentage points after 2025.

Real Bracket Creep and Related Factors

The income thresholds for the various tax rate brackets in the individual income tax are indexed to increase with

inflation (as measured by the chained consumer price index published by the Bureau of Labor Statistics).² If income grows faster than prices—as CBO projects it will in each year from 2023 to 2032—more income is pushed into higher tax brackets, a process known as real bracket creep. In addition, the Internal Revenue Service sets the adjustments to those income thresholds before the start of the tax year, which means that the adjustments are based on inflation in the previous year. Because of that lag, a larger share of income may be taxed at higher rates during periods of high inflation. Many other parameters of the tax system are also indexed for inflation, including the amounts of the standard deduction and the earned income tax credit. But certain parameters, such as the amount of the child tax credit, are fixed in nominal dollars and not adjusted for inflation.

The upshot is that the individual income tax system is not indexed for real growth (that is, growth beyond the rate of inflation). Instead, it is partially indexed for inflation, and the indexing occurs with a lag. Together, those features of the system cause projected annual revenues as a percentage of GDP to rise by 0.3 percentage points from 2023 to 2032.

Projected Decline in Realizations of Capital Gains

Over the past 40 years, profits from sales of assets—capital gains realizations—have equaled 3.6 percent of GDP a year, on average. CBO estimates that realizations were significantly above that historical average in the past two years, totaling 5.5 percent of GDP in calendar year 2020 and 5.8 percent in 2021. In CBO’s baseline projections, capital gains realizations decline over the next decade to a level consistent with their historical average percentage of GDP (after accounting for differences in applicable tax rates). That anticipated decline reduces projected annual receipts from individual income taxes as a share of GDP by about 0.5 percentage points over the next decade.

Other Factors Affecting Individual Income Taxes

CBO projects that under current law, several other factors would have negative effects on receipts from

individual income taxes over the coming decade, reducing those receipts by a total of 1.5 percent of GDP.

First, a pandemic-related tax provision allowed employers to defer payment of some of their payroll taxes in 2020 and 2021; instead, they can make half of the deferred payments in 2022 and half in 2023. That provision will boost tax receipts in 2022 and 2023 but will have no effect thereafter, causing receipts to drop.

Second, various types of taxable income (other than realizations of capital gains) are projected to decline as a percentage of GDP. The most notable decline is for wages and salaries. Taxable income from pensions and unemployment insurance, which has been fairly high for the past two years, is also projected to decline relative to GDP.

Third, and most significant, receipts from individual income taxes in the past few years have been larger than expected given currently available data on economic activity and the past relationship between tax revenues and the state of the economy. Those larger-than-anticipated receipts may have resulted from several possible developments. They may reflect higher wage or nonwage income than the Bureau of Economic Analysis has reported for the past two years. Realizations of capital gains in those years may have been larger than CBO has estimated, or a larger share of those realizations may have come from sales of assets held for less than a year, which are subject to higher tax rates. Also, the temporary tax provisions enacted in response to the pandemic may not have been as widely used as anticipated. And the distribution of taxable income may have been skewed more toward higher-income taxpayers (who, on average, are subject to higher tax rates) than CBO estimates.

Depending on which factors explain those larger-than-expected receipts from individual income taxes, their effects might be expected to persist permanently, end abruptly, or even reverse. In CBO’s baseline projections, the unexplained strength of individual income tax receipts gradually dissipates over the next few years.

Payroll Taxes

Receipts from payroll taxes, which fund social insurance programs, totaled \$1.3 trillion in 2021, or 5.9 percent of GDP. Under current law, payroll taxes are projected to remain between 5.9 percent and 6.0 percent of GDP in each year through 2032.

2. For more information, see Congressional Budget Office, “How Income Growth Affects Tax Revenues in CBO’s Long-Term Budget Projections” (presentation, June 2019), www.cbo.gov/publication/55368.

Table 4-2.

CBO's Baseline Projections of Payroll Tax Revenues

Billions of Dollars

	Actual, 2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total	
													2023– 2027	2023– 2032
Social Security	952	1,054	1,136	1,186	1,228	1,272	1,320	1,369	1,420	1,472	1,527	1,584	6,142	13,514
Medicare	295	331	355	369	382	396	412	429	446	463	482	501	1,913	4,234
Unemployment Insurance	57	68	69	57	46	43	40	40	41	42	44	45	254	465
Railroad Retirement	5	5	6	6	6	6	6	6	6	7	7	7	29	62
Other Retirement ^a	6	6	7	7	8	9	9	10	11	11	12	13	40	97
Total	1,314	1,465	1,572	1,625	1,669	1,726	1,786	1,853	1,923	1,995	2,072	2,150	8,378	18,372

Data source: Congressional Budget Office. See www.cbo.gov/publication/57950#data.

a. Consists largely of federal employees' contributions to the Federal Employees Retirement System and the Civil Service Retirement System.

Sources of Payroll Tax Receipts

The two largest sources of payroll tax receipts are the taxes dedicated to Social Security and Part A of Medicare (see Table 4-2). Much smaller sources are unemployment insurance taxes (most of which are imposed by states, although their receipts are classified as federal revenues); employers' and employees' contributions to the Railroad Retirement system; and other contributions to federal retirement programs, mainly by federal employees. The premiums that Medicare enrollees pay for Part B (the Medical Insurance program) and Part D (prescription drug benefits) are voluntary payments and thus are not counted as tax revenues. Rather, they are considered offsets to spending and appear on the spending side of the budget as offsetting receipts.

Social Security and Medicare payroll taxes are calculated as a percentage of a worker's earnings. Almost all workers are in jobs covered by Social Security. The Social Security tax is usually 12.4 percent of earnings, with the employer and employee each paying half. That tax applies only up to a certain amount of a worker's annual earnings (\$147,000 in 2022, an amount that is indexed to increase with the growth of average earnings for all workers). The Medicare tax applies to all earnings, with no taxable maximum. It is levied at a rate of 2.9 percent, with the employer and employee each paying half. An additional Medicare tax of 0.9 percent is levied on the amount of an individual's earnings over \$200,000 (or \$250,000 for a married couple filing a joint income tax return), bringing the total Medicare tax on those earnings to 3.8 percent.

Projected Receipts

Annual receipts from the Social Security and Medicare payroll taxes are both projected to be stable relative to GDP over the 2022–2032 period. Social Security tax revenues will remain at 4.3 percent of GDP throughout that period. Medicare tax revenues will rise slightly but remain between 1.3 percent and 1.4 percent of GDP from 2022 to 2032.

Receipts from unemployment insurance taxes declined each year from 2012 to 2019 (both in nominal dollars and relative to GDP) and totaled 0.2 percent of GDP in 2019. Payments of unemployment benefits rose in 2020 because of pandemic-induced job losses. States responded by raising more unemployment insurance revenues to replenish their unemployment insurance trust funds. Consequently, those revenues rose to 0.3 percent of GDP in 2021. They are projected to remain at that elevated level for several years before resuming their pre-2020 decline, gradually falling to 0.1 percent of GDP in 2026 and staying at that level through 2032. Receipts from all of the remaining sources of payroll tax revenues are projected to remain below 0.1 percent of GDP throughout the 2022–2032 period.

Corporate Income Taxes

In 2021, receipts from corporate income taxes totaled \$372 billion, or 1.7 percent of GDP. CBO expects corporate tax receipts to rise by \$23 billion in 2022 but to fall as a percentage of GDP, to 1.6 percent. After 2022, corporate tax receipts are projected to rise through 2024, reaching 1.8 percent of GDP, and then to decline to

1.4 percent of GDP from 2029 to 2032. That pattern reflects several factors, including a projected decrease in corporations' domestic economic profits as a share of GDP; the phaseout of some effects of the pandemic and provisions enacted in response to it; and the various ways in which provisions of the Coronavirus Aid, Relief, and Economic Security (CARES) Act of 2020 (P.L. 116-136) and the 2017 tax act are projected to affect corporate tax receipts over time.

Receipts in 2022

CBO expects corporations' income tax payments, net of refunds, to rise by 6 percent in 2022, to \$395 billion. That increase is smaller than the projected increases in domestic economic profits and GDP (both of which are expected to grow by 10 percent in 2022), so corporate tax revenues are expected to decline relative to both profits and GDP in 2022. That decline is consistent with the tax collections seen during the first half of fiscal year 2022. It probably results in part from effects of the pandemic, and of temporary provisions enacted in response to the pandemic, that boosted receipts in 2021 but not in subsequent years. In particular, initial evidence for the 2020 tax year suggests that corporations made smaller early payments and larger subsequent payments for that year than they would have in a more typical year. As a result, a larger share of total corporate tax liabilities for the 2020 tax year were collected in fiscal year 2021.

Receipts After 2022

In CBO's baseline projections, annual receipts from corporate income taxes decline by 0.2 percent of GDP, on net, between 2022 and 2032. Several factors contribute to that projected decline, but they are partially offset by factors expected to boost receipts over the 2023–2032 period. The factors reducing receipts include CBO's expectation that domestic economic profits will decline relative to GDP. In addition, corporate tax receipts in 2021 were higher than can be fully explained by the currently available data, and CBO projects that the factors driving that temporary strength will gradually diminish.

Scheduled changes in tax rules over the 2023–2032 period will have varying effects on the amount of corporate tax receipts collected. Payments of a onetime tax on previously untaxed foreign profits are set to end, which will reduce receipts. But the scheduled phaseout of temporary provisions of the CARES Act, as well as scheduled changes in tax rules enacted in the 2017 tax act, will boost receipts.

Decline in Domestic Economic Profits Relative to GDP. CBO projects that domestic economic profits will fall from 9.8 percent of GDP in 2022 to 7.7 percent of GDP in 2032, in part because of rising interest payments on businesses' debt over the next several years. By itself, that anticipated decline in profits relative to GDP causes CBO's projections of annual receipts from corporate income taxes to fall by about 0.2 percent of GDP over the next decade.

Expected Dissipation of Recent Strength in Tax Collections. Corporate tax collections were larger in 2021 and early 2022 than can be fully explained by currently available data on business activity for those years. The factors that contributed to the unexplained strength in receipts will not become fully apparent until information from tax returns becomes available over the next two years. Depending on the factors that caused those larger receipts, their effects might be expected to continue indefinitely, end suddenly, or even change direction. In CBO's projections, the unexplained strength gradually dissipates over the next few years, causing annual corporate tax revenues to decline by about 0.2 percent of GDP between 2023 and 2032.

Scheduled Changes in Tax Rules. On net, changes in tax rules that are scheduled to occur over the next decade increase CBO's projections of annual corporate tax receipts by 0.1 percent of GDP.

Some of the changes projected to boost corporate tax receipts involve the amount of deductions that companies are allowed to take for various expenses and the speed at which they can take them. Currently, businesses can immediately deduct the full value of expenses for investment in equipment and certain other qualified investments. Those "bonus depreciation" provisions, which were extended most recently by the 2017 tax act, are scheduled to phase out between 2023 and 2027, reducing the amount of allowable deductions in a given year. In addition, beginning in 2022, businesses must use new rules for calculating expenses related to research and experimentation, which will reduce deductions for those expenses. Another scheduled change involves a provision of the CARES Act that allowed companies to obtain refunds for net operating losses accrued between 2019 and 2021. That provision does not apply to later years.

Partly offsetting the effects of those factors are scheduled changes that are expected to decrease corporate tax

receipts. One example is the end of scheduled payments for the onetime tax on previously untaxed foreign profits, known as deemed repatriation. Businesses began making those payments in 2018, and the largest installments are due in 2024 and 2025. Those payments are set to end after 2025, reducing corporate receipts.

Smaller Sources of Revenues

The other sources of federal revenues consist of excise taxes, remittances from the Federal Reserve System to the Treasury, customs duties, estate and gift taxes, and miscellaneous fees and fines. Revenues from those sources totaled \$317 billion in 2021 (see Table 4-3), or 1.4 percent of GDP. CBO projects that those receipts will remain at 1.4 percent of GDP in 2022, the result of offsetting changes in some of those smaller revenue sources.

Excise taxes are projected to decline gradually as a share of GDP over the next decade, from 0.4 percent in 2022 to 0.3 percent in 2032, as the tax bases on which many of those taxes are levied shrink. Remittances from the Federal Reserve—which climbed to 0.4 percent of GDP in 2020 and 2021 because of the central bank’s actions in response to the pandemic-induced recession (including an expansion of its holdings of assets)—are expected to remain at 0.4 percent of GDP in 2022. Remittances are expected to decline sharply in 2023, however, because of changes in the Federal Reserve’s portfolio of assets and increases in interest rates. Remittances are projected to gradually increase thereafter, to 0.3 percent of GDP in 2032. Customs duties, which totaled 0.4 percent of GDP in 2021, are projected to decline gradually, to 0.3 percent of GDP in 2032, as imports of goods subject to those duties grow more slowly than GDP.

Excise Taxes

Unlike taxes on income, excise taxes are levied on the production or purchase of a particular type of good or service. In CBO’s baseline projections, about 90 percent of excise tax receipts come from taxes related to highways, aviation, tobacco, and alcohol.

Excise tax revenues are projected to rise from \$88 billion in 2022 to \$96 billion in 2032. Nevertheless, those receipts are projected to decline slightly relative to GDP. The main reason is that many excise taxes are imposed as a fixed dollar amount per unit sold, and the number of units sold is projected to either grow more slowly than the overall economy or decline in coming years.

In general, CBO’s baseline projections reflect the assumption that expiring tax provisions will follow the schedules set forth in current law. However, the Balanced Budget and Emergency Deficit Control Act of 1985 (P.L. 99–177) requires that CBO’s baseline incorporate the assumption that expiring excise taxes dedicated to trust funds will be extended. Receipts from excise taxes that are assumed to be extended after expiration account for about one-third of the excise tax revenues projected over the next decade. Trust funds financed in part by excise taxes that are scheduled to expire during that period include the Highway, Airport and Airway, Patient-Centered Outcomes Research, Oil Spill Liability, Sport Fish Restoration and Boating, Hazardous Substances Superfund, and Leaking Underground Storage Tank trust funds.

Highway Taxes. Almost half of excise tax receipts in 2022 come from highway taxes. Those taxes include levies on the consumption of gasoline, diesel fuel, and blends of those fuels with ethanol, and taxes on the retail sale of trucks and use taxes on certain vehicles. Annual receipts from highway taxes, which are largely dedicated to the Highway Trust Fund, are projected to increase only slightly each year between 2022 and 2032. Over that period, those receipts average \$43 billion a year.

CBO’s projection of a slight increase in highway tax revenues is the net effect of falling receipts from taxes on fuel and rising receipts from taxes on trucks. Gasoline consumption is expected to decline because improvements in vehicles’ fuel economy are expected to more than offset increases in the number of miles that people drive. CBO expects that increases in fuel economy will also reduce the consumption of diesel fuel per mile driven during the next 10 years.

Under current law, most of the federal excise taxes used to fund highway programs are scheduled to expire on September 30, 2028. CBO’s baseline incorporates the assumption that those expiring taxes would be extended because they are dedicated to a trust fund.

Aviation Taxes. In CBO’s baseline, receipts from taxes on airline tickets, aviation fuels, and various aviation-related transactions are projected to increase from \$15 billion in 2022 to \$25 billion in 2032—an average annual growth rate of 5 percent. That growth is close to the projected growth of GDP over that period. The largest component of aviation excise taxes, a tax on airline tickets, is

Table 4-3.

CBO's Baseline Projections of Smaller Sources of Revenues

Billions of Dollars

	Actual, 2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	Total		
												2023– 2032	2023– 2032	
Excise Taxes														
Highway	43	42	43	43	43	43	43	43	43	42	42	42	215	428
Aviation	6	15	17	19	19	20	21	22	22	23	24	25	97	212
Tobacco	12	12	12	12	11	11	10	10	9	9	9	8	55	101
Alcohol	11	11	10	10	10	10	10	10	10	10	11	11	51	103
Health care	3	3	2	4	3	3	3	3	3	3	3	3	14	29
Other	*	4	6	6	6	6	6	6	6	6	7	7	29	62
Subtotal	75	88	90	94	93	93	93	93	94	94	95	96	462	934
Federal Reserve Remittances	100	111	30	20	32	47	56	65	76	87	98	111	185	622
Customs Duties	80	95	99	100	101	102	103	104	105	107	109	110	505	1,040
Estate and Gift Taxes	27	29	29	28	28	29	43	46	49	52	56	60	156	418
Miscellaneous Fees and Fines														
Universal Service Fund fees	9	10	10	10	10	10	11	11	11	11	11	11	52	106
Other fees and fines	25	22	24	27	27	29	31	33	36	34	35	37	138	313
Subtotal	34	32	34	38	37	39	41	44	47	45	46	47	190	419
Total	317	354	283	279	290	310	336	352	370	385	403	424	1,498	3,433

Data source: Congressional Budget Office. See www.cbo.gov/publication/57950#data.

* = between -\$500 million and zero.

levied as a percentage of the dollar value of transactions rather than on the number of units sold (as gasoline taxes are, for example). Thus, receipts from aviation taxes rise as both real economic activity and prices increase.

Under current law, most aviation taxes are scheduled to expire in 2023. CBO's baseline incorporates the assumption that those expiring taxes would be extended because they are dedicated to a trust fund (the Airport and Airway Trust Fund).

Tobacco and Alcohol Taxes. In CBO's baseline projections, revenues from taxes on tobacco products total \$12 billion in 2022. That amount is projected to decrease by roughly 4 percent a year over the next decade, to \$8 billion in 2032, in part because tobacco consumption is expected to continue declining. Receipts from taxes on alcoholic beverages are expected to total \$10.6 billion in both 2022 and 2032. CBO anticipates that receipts from excise taxes on both tobacco and alcohol products will be reduced over the next decade because a recent court ruling will allow a growing share of those products to avoid federal excise taxes altogether.³

Health Care Taxes. In CBO's baseline projections, annual receipts from health care taxes average \$3 billion over the 2022–2032 period. Most of those receipts come from the annual fee imposed on manufacturers and importers of brand-name drugs, which was instituted under the Affordable Care Act (P.L. 111-148).

Other Excise Taxes. Collections of other excise taxes are projected to increase from \$4 billion in 2022 to \$7 billion in 2032. That growth largely results from recently reinstated taxes that are assessed on various hazardous substances and dedicated to the Hazardous Substances Superfund. Those taxes, which were recently reimposed by the Infrastructure Investment and Jobs Act (P.L. 117-58), will start being collected partway through 2022 and are projected to total more than \$2 billion in 2032. Other excise taxes include taxes dedicated to the Federal Aid to Wildlife Restoration Fund, the Oil Spill Liability

International Trade in *The National Association of Manufacturers, The Beer Institute v. Department of the Treasury, et al. (NAM)*. As a result of the ruling, tobacco and alcohol products on which excise taxes would normally apply will receive a drawback (or refund) of those excise taxes in situations in which the merchandise can be matched to similar products that are exported or destroyed—even when no excise tax had previously been collected on the exported or destroyed merchandise.

3. On August 23, 2021, the U.S. Court of Appeals for the Federal Circuit upheld an earlier ruling by the U.S. Court of

Trust Fund, and the Patient-Centered Outcomes Research Trust Fund.

Remittances From the Federal Reserve System

The income produced by the activities of the Federal Reserve System—minus the costs of generating that income and operating the system—is remitted to the Treasury and counted as revenue. Most of that income comes from interest on Treasury securities and mortgage-backed securities held by the central bank, whereas most of those costs are for interest payments made to banks on the reserves they hold with the Federal Reserve.

The Federal Reserve's response to the pandemic-induced recession led to a large increase in remittances to the Treasury. Remittances increased from \$53 billion (or 0.2 percent of GDP) in 2019 to \$100 billion (or 0.4 percent of GDP) in 2021, the first full fiscal year reflecting the changes made since the pandemic. That increase was largely caused by the difference (or spread) between the interest rates on the Federal Reserve's assets and the interest rates on its liabilities and by the larger balance sheet to which that spread applied.

In CBO's baseline projections, remittances peak at \$111 billion in 2022 (more than 0.4 percent of GDP). Thereafter, as the interest rate on reserves rises, remittances drop to a low of \$20 billion (or 0.07 percent of GDP) in 2024. (For details about CBO's forecasts of monetary policy and interest rates in the coming decade, see Chapter 2.) Remittances start to increase in 2025 as more of the Federal Reserve's short-term assets mature and move off the balance sheet, causing its interest expenses to decline. CBO expects that the Federal Reserve will begin expanding its asset holdings in 2026 to meet the demand for currency and reserves. That expansion, along with a projected rise in interest rates, keeps remittances increasing steadily as a share of GDP.

Remittances are projected to total 0.3 percent of GDP in 2032—about 0.1 percent of GDP lower than this year, but 0.1 percent of GDP higher than the average over the 1998–2007 period (the decade before the central bank changed its operations in response to the 2008 financial crisis).

Customs Duties, Estate and Gift Taxes, and Miscellaneous Fees and Fines

Revenues from all other sources are projected to remain relatively stable over the next decade, together

continuing to account for 0.6 percent of GDP each year between 2022 and 2032.

Customs Duties. Customs duties, which are assessed on certain imports, have averaged 0.2 percent of GDP for the past two decades. Receipts from customs duties rose in the past several years after the implementation of new tariffs. They include tariffs on imports of solar panels and some appliances, which took effect in February 2018; tariffs on steel and aluminum imports from certain countries, which took effect in March 2018; tariffs on a range of products imported from China, which were imposed in 2018 and 2019; and tariffs on certain soft-wood lumber products from Canada, which took effect in December 2021. (Some of the tariffs on steel and aluminum were later replaced with tariff rate quotas.)⁴ The additional taxes levied on affected imports vary from 10 percent to 25 percent of the assessed customs value of those products.

CBO's baseline reflects the assumption that those recent tariffs will continue throughout the 2023–2032 period at the rates currently in effect. However, the Administration has broad authority to modify tariff policy without legislative action.

4. CBO's projections of revenues from customs duties reflect tariff rate quotas (TRQs) on certain imports from Argentina, Brazil, and South Korea that went into effect on June 1, 2018, and TRQs on imports from the European Union that went into effect on January 1, 2022. Those projections do not reflect tariff rate quotas that went into effect after CBO completed its projections, including a TRQ on imports from Japan that took effect on April 1, 2022, and a TRQ on imports from the United Kingdom that is scheduled to take effect on June 1, 2022.

For each affected product category, TRQs allow a specified amount (or quota) of goods to be imported from those places under most-favored-nation tariff rates. Any imports exceeding the quota are subject to an additional tariff rate. Like tariffs without quota systems, binding TRQs (in which the amount of imports equals or exceeds the quota) put upward pressure on the prices that domestic consumers and businesses pay for affected imports, relative to the prices they would pay in the absence of a TRQ. As a result, binding TRQs, like tariffs without quota systems, usually reduce imports. TRQs and tariffs differ, however, in that the United States collects less customs revenue under a TRQ because a portion of imports is not subject to the additional tariff. That difference in customs revenue partly reflects revenue that is indirectly ceded to foreign governments and exporters. Thus, replacing a tariff with a binding TRQ can lead to similar increases in domestic prices and reductions in imports, while reducing customs revenue. In CBO's estimation, customs revenue would be roughly \$3 billion higher in 2023 if the TRQs on imports from Argentina, Brazil, South Korea, and the European Union were replaced by tariffs without quota systems.

Customs duties totaled 0.4 percent of GDP in 2021 because of those additional tariffs as well as increases in imports that began in 2020 after the start of the pandemic. In CBO's baseline, customs duties decline gradually, to 0.3 percent of GDP in 2032, partly because imports other than oil are projected to grow more slowly than GDP.

Estate and Gift Taxes. In 2021, revenues from estate and gift taxes totaled \$27 billion (or just over 0.1 percent of GDP). Revenues from those taxes are projected to remain near that level through 2026 but to rise sharply in 2027, after a scheduled decline at the end of calendar year 2025 in the amounts exempted from estate and gift taxes. CBO projects that receipts from those taxes would total 0.2 percent of GDP in 2032.

Miscellaneous Fees and Fines. Receipts from fees and fines totaled \$34 billion (or 0.2 percent of GDP) in 2021. Under current law, those receipts would decline slightly and average 0.1 percent of GDP from 2022 to 2032, CBO projects.

Tax Expenditures

Many exclusions, deductions, credits, and preferential rates in the federal tax system cause revenues to be lower than they would be otherwise for any underlying set of tax rates. Such provisions resemble federal spending and contribute to the budget deficit; thus, they are known as tax expenditures.⁵

Like federal spending, tax expenditures provide financial assistance for specific activities, entities, or groups of people. However, the budgetary treatment of tax expenditures differs from that of spending programs. Although tax expenditures increase the deficit by reducing the government's revenue collections, the amount of forgone revenues attributable to specific tax expenditures (or to tax expenditures in general) is not recorded separately in the budget, unlike outlays for each spending program.⁶ The Congressional Budget Act of 1974 (P.L. 93-344)

5. Sec. 3(3) of the Congressional Budget and Impoundment Control Act of 1974, codified at 2 U.S.C. §622(3) (2006), defines tax expenditures as "those revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption, or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability."

6. The exception is the portion of refundable tax credits that exceeds a taxpayer's tax liability; that amount is recorded in the budget as mandatory spending.

requires that the federal budget list tax expenditures. The Administration and the Congress regularly publish estimates of tax expenditures prepared by the Treasury's Office of Tax Analysis and the staff of the Joint Committee on Taxation (JCT), respectively.⁷

Magnitude of Tax Expenditures

Tax expenditures have a major impact on the federal budget. On the basis of estimates prepared by JCT, CBO estimates that in 2022, forgone revenues from the more than 200 tax expenditures in the individual and corporate income tax systems will total 8.3 percent of GDP (including their effects on payroll taxes as well as on income taxes).⁸ That amount equals 42 percent of projected federal revenues for 2022 and exceeds projected outlays for all discretionary programs combined (see Figure 4-3).

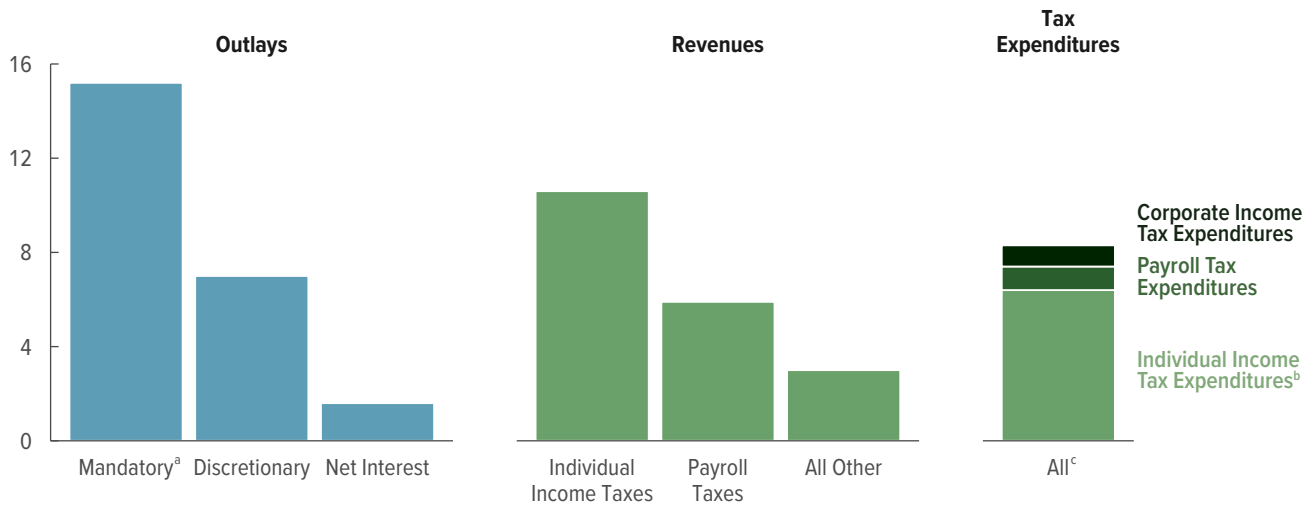
7. For this analysis, CBO followed JCT's definition of tax expenditures as deviations from a "normal" income tax structure. For the individual income tax, that structure includes existing regular tax rates, the standard deduction, personal exemptions, and deductions of business expenses. For the corporate income tax, that structure includes the statutory tax rate, generally defines income on an accrual basis, and allows for costs to be recovered according to a specified depreciation system that is less favorable than under current law. For more information, see Congressional Budget Office, *How Specifications of the Reference Tax System Affect CBO's Estimates of Tax Expenditures* (December 2021), www.cbo.gov/publication/57543; and Joint Committee on Taxation, *Estimates of Federal Tax Expenditures for Fiscal Years 2020–2024*, JCX-23-20 (November 2020), www.jct.gov/publications/2020/jcx-23-20. The Treasury's definition of tax expenditures is broadly similar to JCT's. See Office of Management and Budget, *Budget of the U.S. Government, Fiscal Year 2023: Analytical Perspectives* (March 2022), pp. 153–201, www.whitehouse.gov/omb/budget/analytical-perspectives.

8. For income tax expenditures, CBO used JCT's most recent estimates of tax expenditures, published in November 2020. Those estimates were made before the enactment of the Consolidated Appropriations Act, 2021 (P.L. 116-260), and the American Rescue Plan Act of 2021 (P.L. 117-2), so they do not reflect the changes made by those laws. Most significantly, those laws provided for the temporary expansion of the child tax credit and earned income tax credit in 2021 and the issuance of additional rounds of recovery rebate payments. CBO calculated tax expenditures as a share of GDP for 2022 using the estimate of GDP that is consistent with JCT's published tax expenditure estimates, which were based on CBO's July 2020 baseline. Unlike JCT, CBO includes estimates of the largest payroll tax expenditures. As defined by CBO, a normal payroll tax structure includes the existing payroll tax rates as applied to a broad definition of compensation, which consists of cash wages and fringe benefits. Tax expenditures that reduce the tax base for payroll taxes also decrease spending for Social Security by reducing the earnings base on which Social Security benefits are calculated.

Figure 4-3.

Estimated Outlays, Revenues, and Tax Expenditures in 2022

Percentage of GDP



Tax expenditures are provisions of the tax system (such as tax credits and deductions) that cause revenues to be lower than they would be otherwise. Like federal spending programs, tax expenditures contribute to the budget deficit. In 2022, the total revenues forgone because of tax expenditures are projected to equal 8.3 percent of GDP.

Data source: Congressional Budget Office, using estimates of tax expenditures prepared by the staff of the Joint Committee on Taxation. See www.cbo.gov/publication/57950#data.

GDP = gross domestic product.

- Includes tax expenditures from the outlay portions of refundable tax credits.
- The outlay portions of refundable tax credits are included in tax expenditures as well as in mandatory outlays. In 2022, they are estimated to total 0.7 percent of GDP. For this analysis, CBO used estimates of tax expenditures prepared by the staff of the Joint Committee on Taxation. Those estimates do not incorporate changes to tax law made after September 30, 2020. Thus, they exclude the effects of the Consolidated Appropriations Act, 2021 (Public Law 116-260), and the American Rescue Plan Act of 2021 (P.L. 117-2). Those laws expanded the refundable child tax credit and earned income tax credit for calendar year 2021 and authorized additional rounds of recovery rebate payments.
- This total is the sum of the estimates for each separate tax expenditure and does not account for interactions among them. However, CBO estimates that in 2022, the total for all tax expenditures will roughly equal the sum of the estimates for each separate tax expenditure. Because estimates of tax expenditures are based on people's behavior with current provisions of the tax code in place, they do not reflect the amount of revenues that would be collected if provisions were eliminated and taxpayers adjusted their activities accordingly.

A simple total of the estimates for specific tax expenditures does not account for the interactions that may occur among those tax provisions. For instance, the total tax expenditure for all itemized deductions would be smaller than the sum of the separate tax expenditures for each deduction. The reason is that all taxpayers would claim the standard deduction if there were no itemized deductions; but if only one or a few itemized deductions were removed, many taxpayers would still choose to itemize. The progressive structure of the tax brackets ensures that the opposite would be the case with income exclusions. In other words, the tax expenditure for all exclusions considered together would be greater than

the sum of the separate tax expenditures for each exclusion. In 2022, those and other factors are expected to be approximately offsetting, so the total amount of tax expenditures is projected to roughly equal the sum of the individual tax expenditures.

Nonetheless, the total amount of tax expenditures does not represent the increase in revenues that would occur if all tax expenditures were eliminated. The reason is that repealing a tax provision would change incentives and lead taxpayers to modify their behavior in ways that would diminish the effect of that repeal on revenues. For example, if the preferential tax rates on capital gains

realizations were eliminated, taxpayers would reduce the amount of capital gains they realized. As a result, the amount of additional revenues that would result from eliminating those preferential rates would be smaller than the estimated size of the tax expenditure.

The Largest Tax Expenditures in 2022

CBO estimates that the 10 largest tax expenditures account for nearly three-quarters of the total budgetary effects of all tax expenditures in 2022, or 6.1 percent of GDP.⁹ Those 10 tax expenditures fall into four categories: exclusions from taxable income, preferential tax rates, tax credits, and deductions from income.

Exclusions From Taxable Income. Taxpayers' ability to exclude certain types of income from taxation accounts for the greatest share of total tax expenditures. The largest excluded items are contributions made to pension funds and earnings of those funds (minus pension benefits that are included in taxable income), as well as premium payments for employment-based health insurance. Another exclusion applies when an asset is transferred at death: Heirs are not liable for taxation on increases in the value of the asset that occurred before they acquired it.

- The exclusion of pension plan contributions and earnings is the single largest tax expenditure in the tax code; including effects on payroll taxes, the tax expenditure resulting from that exclusion is estimated to equal 1.8 percent of GDP in 2022.¹⁰
- The exclusion of contributions for employment-based health insurance has the second-largest impact, resulting in a tax expenditure that is estimated to total 1.5 percent of GDP this year, including effects on payroll taxes.
- The tax expenditure caused by the exclusion from individual income taxation of capital gains at death is estimated to equal 0.2 percent of GDP in 2022.

9. For that estimate, CBO combined the components of certain tax expenditures that JCT reported separately, such as tax expenditures for different types of charitable contributions.

10. That total includes amounts from defined benefit plans and defined contribution plans offered by employers. It does not include amounts from self-directed individual retirement arrangements or from Keogh plans that cover partners and sole proprietors, although contributions to those plans and earnings accrued in them are also excluded from taxable income until withdrawal.

Preferential Tax Rates. Under the individual income tax, some forms of income, such as dividends and long-term capital gains, are subject to preferential tax rates. Under the corporate income tax, income of controlled foreign corporations is taxed at a lower rate than profits of domestic corporations.

- The tax expenditure for the preferential tax rates on dividends and long-term capital gains is estimated to total 0.7 percent of GDP in 2022.¹¹
- The tax expenditure for the reduced tax rate on active income of controlled foreign corporations is estimated to equal 0.3 percent of GDP in 2022.¹²

Tax Credits. Credits reduce tax liability dollar for dollar by the amount of the credit. Nonrefundable tax credits cannot reduce a taxpayer's income tax liability to less than zero, whereas refundable tax credits may result in direct payments to taxpayers who do not owe any income taxes.¹³

- The tax expenditure for the tax credit for children and other dependents is estimated to total 0.5 percent of GDP in 2022. Typically, about one-quarter of the budgetary effect of that credit is recorded in the budget as mandatory spending because it is paid to people who have no income tax liability.

11. Taxpayers with income over certain thresholds—\$200,000 for single filers and \$250,000 for married couples filing joint returns—face a surtax equal to 3.8 percent of their investment income (including capital gains and dividend income, as well as interest income and some passive business income). That surtax reduces the preferential treatment of dividends and capital gains. JCT treats the surtax as a negative tax expenditure—that is, as a deviation from the tax system that increases rather than decreases taxes—and it is not included in the estimates presented here.

12. Although the current and future income of controlled foreign corporations is subject to a lower tax rate, previously deferred income that those corporations accumulated before 2018 is subject to a onetime tax, which can be paid over eight years. The estimate for this tax expenditure does not include any offset for the onetime tax on prior-year income.

13. JCT's estimates of tax expenditures that CBO used in this analysis do not reflect changes to tax law made after September 30, 2020. Thus, they exclude the effects of the Consolidated Appropriations Act, 2021, and the American Rescue Plan Act of 2021. Those laws expanded the refundable child tax credit and earned income tax credit for calendar year 2021 and authorized additional rounds of recovery rebate payments.

- The tax expenditure for the earned income tax credit is estimated to total 0.3 percent of GDP in 2022. Most of the budgetary effect of that credit is recorded in the budget as mandatory spending.
- The tax expenditure for the premium tax credit—which helps people with low and moderate income buy health insurance through marketplaces—is estimated to total 0.2 percent of GDP in 2022. Most of the budgetary effect of that credit is recorded as mandatory spending in the budget.

Deductions From Income. Deductions allow taxpayers to reduce their taxable income, generally by an amount they have spent for a particular purpose. For example, itemized deductions let taxpayers deduct more than the amount of the standard deduction on the basis of expenses they have incurred, such as contributions to charities. And many owners of pass-through businesses can take a deduction equal to 20 percent of qualified business income, which includes reasonable compensation to owners for services rendered to the business.¹⁴

- The tax expenditure for the itemized deduction for charitable contributions is estimated to equal 0.3 percent of GDP in 2022.
- The tax expenditure for the 20 percent deduction for qualified business income available to certain pass-through businesses is estimated to equal 0.2 percent of GDP in 2022.

Distribution of Tax Expenditures

Tax expenditures vary greatly in the distribution of their benefits among households in different income groups. Exclusions and deductions from income typically create larger tax expenditures for higher-income taxpayers than for lower-income taxpayers because individual income tax rates rise with income. Similarly, tax expenditures for preferential tax rates are derived from the difference between the ordinary tax rate and the preferential rate, so those tax expenditures accrue mostly to higher-income taxpayers, who have higher ordinary rates. By contrast, the benefits from tax credits are skewed toward lower- and middle-income households, mainly because

the largest tax credits phase out to zero as income rises beyond certain thresholds.

The most recent year for which CBO has completed an analysis of the distributional effects of tax expenditures is 2019.¹⁵ In that year, higher-income households benefited more from the 13 largest tax expenditures (measured in dollars) than lower-income households did. CBO estimates that 50 percent of the total benefits of income tax expenditures accrued to households in the highest one-fifth (quintile) of the income distribution, 13 percent accrued to households in the middle quintile, and 9 percent accrued to households in the lowest quintile. Payroll tax expenditures, which have a smaller total value, were more evenly distributed: 34 percent accrued to households in the highest quintile, 21 percent to households in the middle quintile, and 4 percent to households in the lowest quintile.

Uncertainty About the Revenue Outlook

Revenue projections are inherently uncertain, and even if no changes were made to current law, actual revenues would undoubtedly differ in some ways from CBO's baseline projections. CBO constructs its revenue projections to be consistent with the agency's economic forecast, which is intended to fall in the middle of the range of likely outcomes for the economy. Thus, actual revenues could turn out to be higher or lower than CBO projects.

Historically, many of the errors in CBO's revenue projections are attributable to errors in the agency's economic forecast. Others result from differences between projected and actual income relative to the size of the economy. The largest projection errors have involved specific hard-to-predict events (such as downturns in the economy) rather than indicating any general trend in the accuracy of CBO's projections.

In analyzing its baseline projections of revenues since 1982, CBO found that projections for the second year (which is often called the budget year and usually begins about six months after the projections are released) and projections for the sixth year were generally too high,

14. Pass-through businesses are businesses whose income is taxed under the individual income tax rather than the corporate income tax.

15. See Congressional Budget Office, *The Distribution of Major Tax Expenditures in 2019* (October 2021), www.cbo.gov/publication/57413.

on average. The largest errors in revenue projections have occurred near economic downturns. However, the overall accuracy of CBO's revenue projections has been similar to that of revenue projections made by the Administration.

Since 1982, the mean absolute error (the average of all errors, regardless of whether they were positive or negative) was 5.2 percent for CBO's budget-year projections and 10.0 percent for the sixth-year projections.¹⁶

16. Those errors include CBO's projections from 1982 through the most recent fiscal years for which actual receipts were available for each projection period: 2020 for the budget-year projections and 2016 for the sixth-year projections. The complete series

In CBO's current baseline projections, those percentage errors would equal about \$250 billion (or 1.0 percent of GDP) in 2023 and \$560 billion (or 1.8 percent of GDP) in 2027.

of past errors is included with the supplemental materials that accompany this report at www.cbo.gov/publication/57950#data. For a more detailed analysis of past errors, see Congressional Budget Office, *An Evaluation of CBO's Past Revenue Projections* (August 2020), www.cbo.gov/publication/56499. That analysis included actual results through fiscal year 2018. For an analysis of errors in 2021, see Congressional Budget Office, *The Accuracy of CBO's Budget Projections for Fiscal Year 2021* (January 2022), www.cbo.gov/publication/57614.