3. LONG-TERM BUDGET OUTLOOK

The horizon for most of the analysis in this Budget is ten years. This ten-year horizon reflects a balance between the importance of considering both the current and future implications of budget decisions made today and a practical limit on the construction of detailed budget projections for years in the future.

Nonetheless, it can be informative to look further into the future, despite the uncertainty surrounding the assumptions needed for such estimates. This chapter begins by discussing the fiscal outlook under current law over the next 25 years. The second section discusses the fiscal impact of the Administration's policies, finding they will cut deficits and debt, compared to the baseline. In the third section, alternative assumptions about the evolution of key variables and uncertainties in the projections are discussed, including the macroeconomic risks of climate change. The fourth section discusses the actuarial projections for Social Security and Medicare. The *technical note* to this chapter provides further detail on data sources, assumptions, and other methods for estimation.

Long-Run Projections under Continuation of Current Policies

The baseline long-term projections assume that current policy continues for Social Security, Medicare, Medicaid, other mandatory programs, and revenues.[1] Projections for all mandatory programs and revenues maintain consistency with other Federal agency projections. From 2034-2048, total mandatory spending grows by 0.2 percentage points as a share of gross domestic product (GDP), while revenues increase by 0.4 percentage points. The Budget provides a specific path for discretionary spending over the next ten years. Thereafter, the baseline long-run projections assume that real per-person discretionary funding remains constant, implying an average growth rate of 2.8 percent per year. The technical note provides additional detail on the methodology behind these projections.

[1] The long-run baseline projections are consistent with the Budget's baseline concept, which is explained in more detail in Chapter 21, "Current Services Estimates," in this volume. The projections assume full payment of scheduled Social Security and Medicare benefits without regard to the projected depletion of the trust funds for these programs. Additional baseline assumptions beyond the ten-year window are detailed in the technical note to this chapter.

Chart 3-1. Comparison of Annual Surplus/Deficit

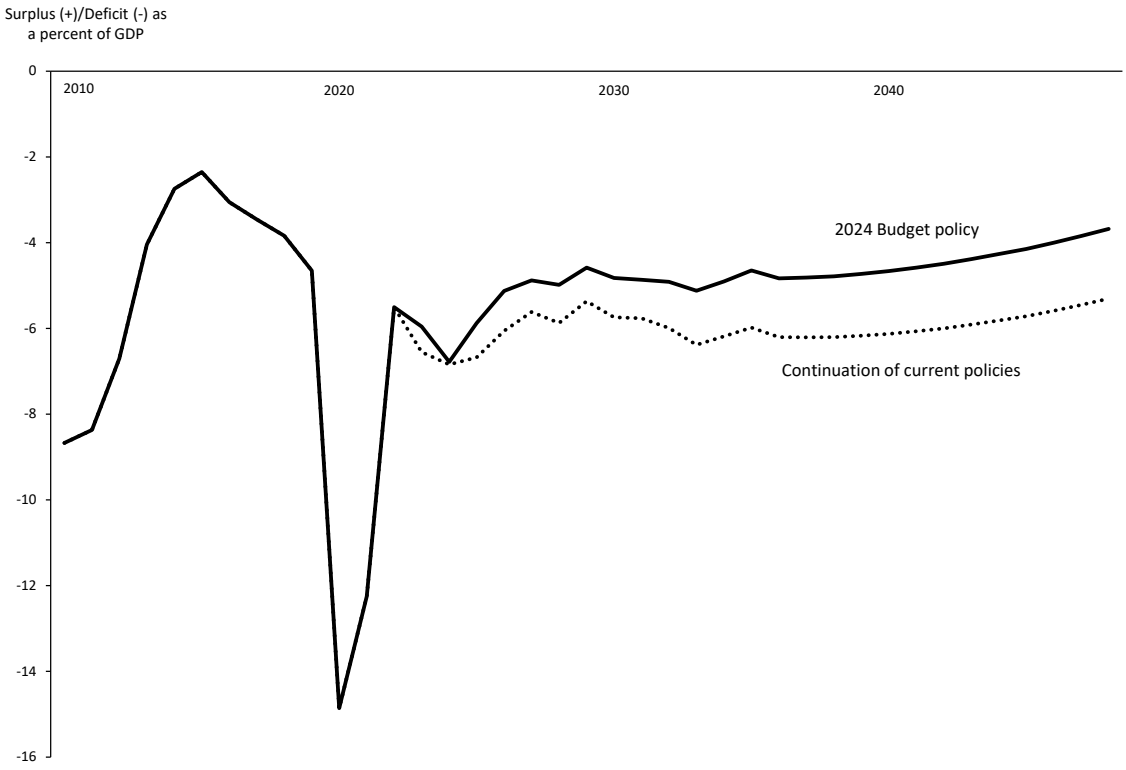
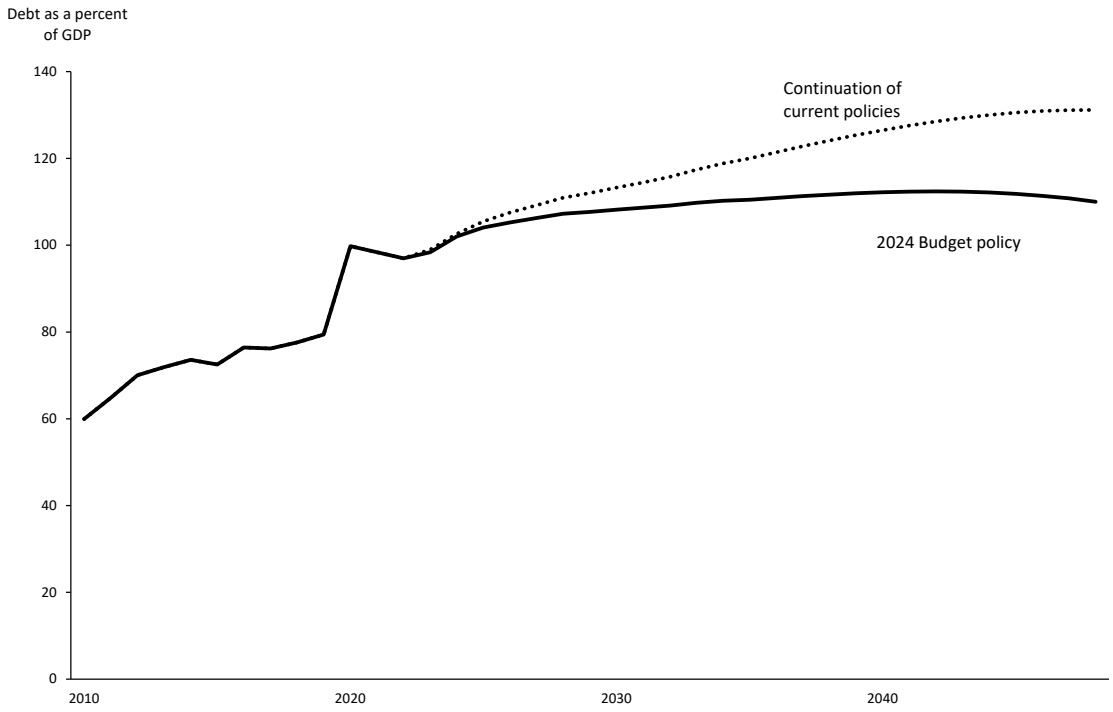


Chart 3-2. Comparison of Publicly Held Debt



Under the baseline, the deficit is projected to average 6.0 percent of annual GDP through the ten-year window. (See Table S-2 of the main *Budget* volume.) Debt is projected to rise to 117.4 percent of GDP in 2033 under current policies. Beyond the ten-year horizon, Chart 3-1 shows that deficits under the baseline projections fall from 6.4 percent of GDP in 2033 to 5.3 percent of GDP by the end of the 25-year window. Chart 3-2 shows that debt under the baseline projections continues to rise as a share of GDP, with increases slowing in the 2040s. From 2033 to 2040, debt is projected to increase from 117.4 to 126.5 percent of GDP under the baseline projections, an increase of 1.3 percentage points per year. In contrast, from 2040 to 2048, debt is projected to increase from 126.5 to 131.2 percent of GDP under the baseline projections, an increase of 0.6 percentage points per year. By the end of the 25-year window, debt as a share of GDP in the baseline projections plateaus. Real net interest eases from 1.2 to 1.1 percent of GDP between 2033 and 2040 under the baseline projections, and then remains stable through 2048.

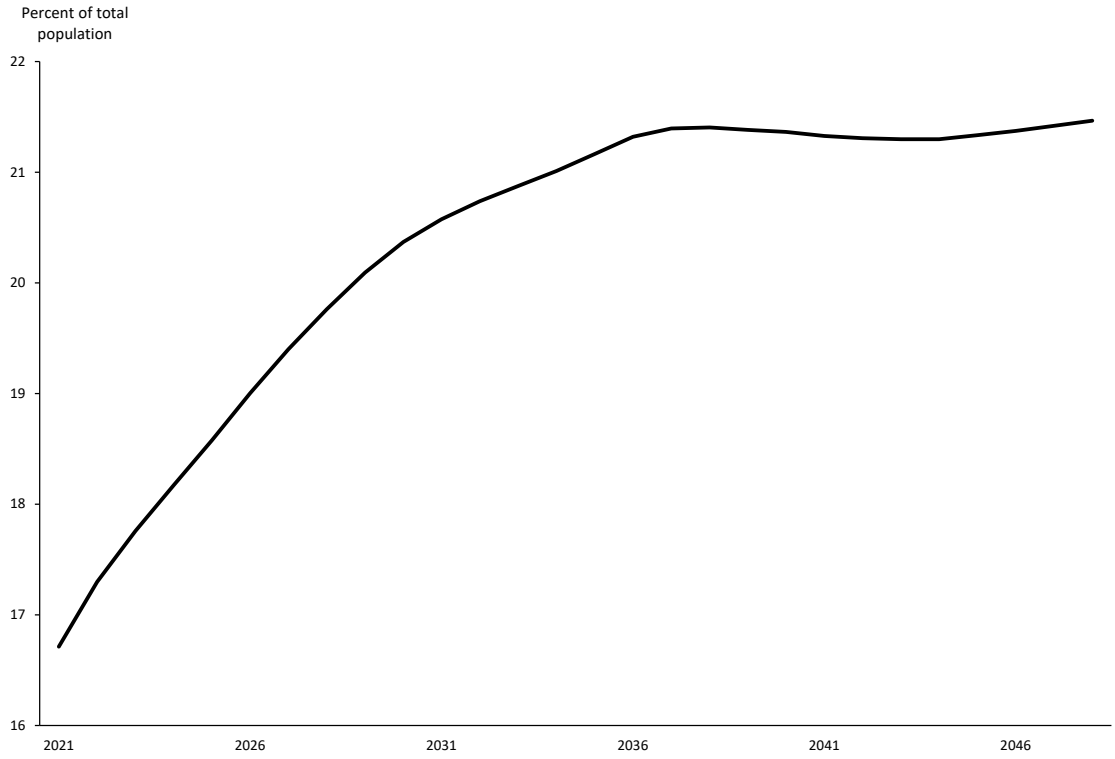
Debt as a share of GDP grows more slowly over time in part because of the projected slowdown in population aging from 2023 forward. Consistent with the demographic assumptions in the 2022 Social Security Trustees' report (see Chart 3-3 below), the elderly (aged 65 or older) share of the U.S. population is projected to rise from 16.7 percent in 2021 to 21.4 percent in 2038 as more baby boomers retire. This aging of the baby-boom cohorts into retirement reduces the rate of labor force growth and therefore the rate of economic growth. However, by the late 2030s, the elderly share of the U.S. population is projected to plateau. As a result, the demographic drag on economic growth from the aging of the U.S. population is projected to subside from 2030 forward, which, all else equal, reduces debt as a share of GDP.

Impact of 2024 Budget Policies on the Long-Term Fiscal Outlook

The 2024 Budget proposes major investments to grow the economy from the middle out and the bottom up, to reduce everyday costs for Americans, and to strengthen public health and improve health outcomes. These investments are coupled with major reforms to both corporate and individual taxation. Because the Budget's reforms to the tax system and reforms to reduce spending—for example, on subsidies to pharmaceutical companies—far exceed the proposed investments, the Budget substantially improves the long-term fiscal outlook.

The Budget's policies lower annual deficits compared to the baseline projections in every year, beginning immediately. To assess the long-run impact, this chapter develops 25-year projections for the impact of the Administration's policies on the Budget, as described in the technical note. The resulting projections show that the revenue increases in the President's Budget more than offset net spending increases in every year, while generating additional savings over the long run. In total, all Budget proposals are projected to reduce deficits by more than $7 trillion in the second decade and improve the fiscal outlook over the long run.

Chart 3-3. Elderly (Age 65+) Share of the U.S. Population



Charts 3-1 and 3-2 illustrate the improvement in deficits and debt. The Budget improves the fiscal outlook over the short and long term, with lower deficits throughout the 25-year window. Similarly, the Budget's policies significantly flatten the projected debt increase compared to the baseline, with debt as a percent of GDP falling in the 2040s, returning back to its 2034 level by 2048. Budget proposals would result in further improvement in the fiscal outlook after 25 years.

Uncertainty and Alternative Assumptions

Future budget outcomes depend on a host of unknowns: changing economic conditions, unforeseen international developments, unexpected demographic shifts, and unpredictable technological advances. The longer budget projections are extended, the more the uncertainties increase. These uncertainties make even short-run budget forecasting quite difficult. For example, the Budget's projection of the deficit in five years is 5.0 percent of GDP, but a distribution of probable outcomes ranges from a deficit of 11.2 percent of GDP to a surplus of 1.2 percent of GDP, at the 10th and 90th percentiles, respectively.[2]

Table 3–1. 25-YEAR DEBT PROJECTIONS UNDER ALTERNATIVE BUDGET SCENARIOS
(Percent of GDP)

2024 Budget Policy	110.0
Real Economic Growth:	
Higher climate damages to real GDP	112.6
Intermediate climate damages to real GDP	111.9
Lower climate damages to real GDP	111.2
Health:	
Excess cost growth 0.5 ppt lower	99.2
Excess cost growth 0.5 ppt higher	123.3
Discretionary Spending:	
Grow with GDP	116.9
Grow with inflation only	107.6

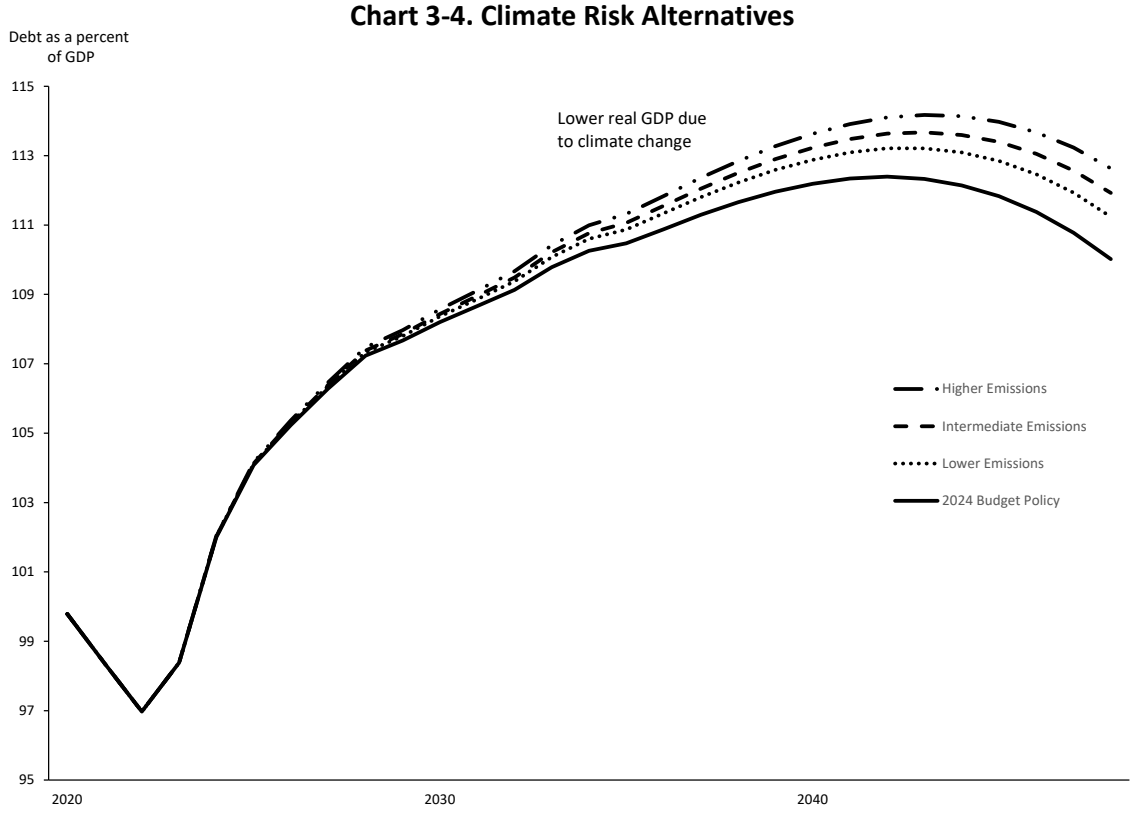
This section considers some specific sources of uncertainty in the projections above, which are summarized in Table 3-1.

Climate Risk.— Real economic growth is highly uncertain. Going forward, real GDP growth is projected to be below its longer-run historical average of 2.5 percent per year, as the slowdown in population growth and the increase in the population over age 65 reduce labor supply growth. In these projections, real GDP growth averages 2.1 percent per year for the period following the end of the ten-year budget window.

Over the long run, the path of real GDP is subject to significant downside risk from climate change. Absent further action to slow the rate of greenhouse gas (GHG) emissions, global temperatures remain on pace to increase over two degrees Celcius from their pre-industrial average by the end of this century. Warming on this scale may have profound impacts on the American economy and the Federal fiscal outlook.

[2] These estimates are presented in Chart 2-1 of Chapter 2, "Economic Assumptions," in this volume.

Chart 3-4. Climate Risk Alternatives



Climate change leads to physical changes that can impact the economy through a variety of pathways. Acute physical risks from an increased rate and severity of natural disasters can harm the productivity of American farms, factories, offices, and infrastructure. Chronic risks like sea level rise and warmer temperatures have the potential to do the same. The combined effects of climate change are projected to lead to lower economic output in the United States.

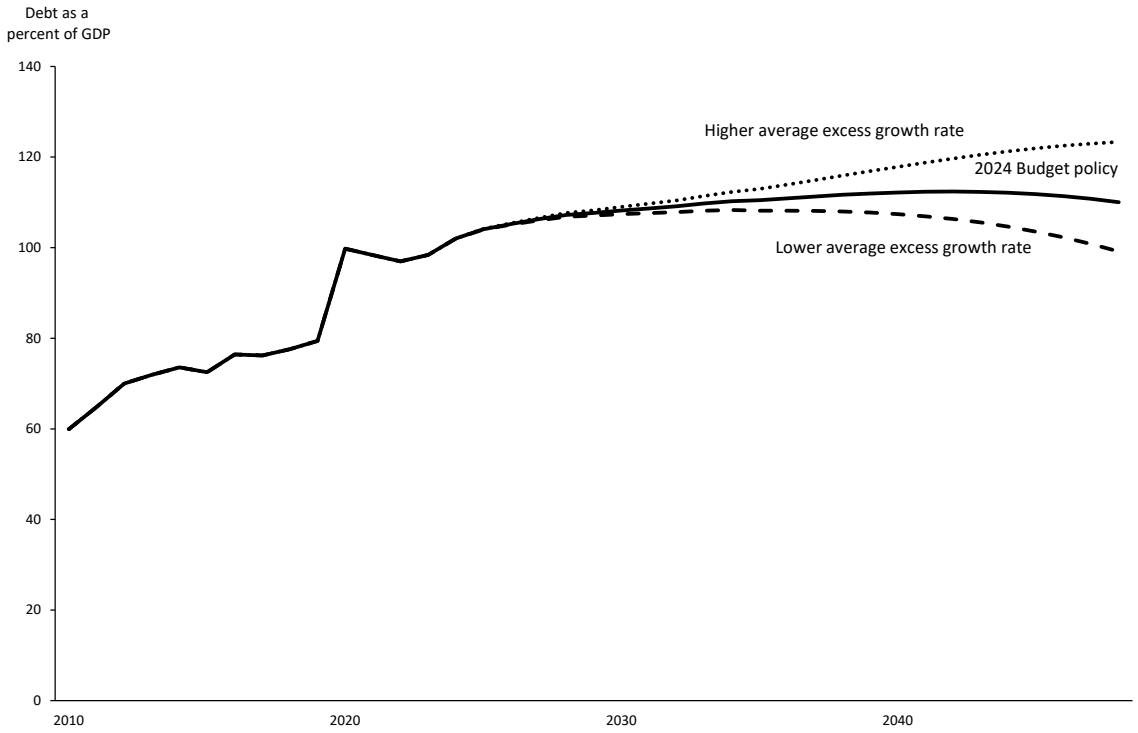
The severity of future climate change and U.S. vulnerability to this change will reflect past and current actions, future domestic policy and economic decisions, as well as policy choices and economic decisions made abroad. While the United States has pledged to reach net-zero GHG emissions by 2050, a primary source of uncertainty regarding physical climate risks to the United States are the GHG emission mitigation choices of other countries. To illustrate the implications of this uncertainty, we analyze the Federal budget impacts of three potential scenarios for GHG emission reductions.[3] All scenarios are consistent with the U.S. emissions reduction commitments. Under the "lower emissions" scenario, other countries also eliminate net GHG emissions by 2050. Under the "intermediate emissions" scenario, other countries maintain their current policies. Under the "higher emissions" scenario, other countries weaken their current GHG reduction policies.

As Chart 3-4 shows, even under the lower emissions scenario, climate damages' consequences to the macroeconomy weaken the fiscal outlook. Debt to GDP under the lower emissions scenario is projected to reach 111.2 percent by 2048, compared to 110.0 percent in the policy baseline. Debt to GDP is projected to be even higher under the intermediate and higher emissions scenarios, reaching 111.9 percent and 112.6 percent, respectively, by 2048. Beyond the 25-year window considered here, the macroeconomic outlooks under these emissions scenarios diverge further over time. As a consequence, the higher emissions scenario, in particular, would lead to even further deteriorations in the longer-term fiscal outlook. This underscores both the macroeconomic and the fiscal risks posed by climate change, as well as the benefits of reducing future emissions. This is one of many reasons why there is an urgent need for continued action on climate change and why the 2024 President's Budget proposes significant investments to reduce the Federal Government's long-term fiscal exposure to climate-related financial risks and to reduce future risks for all Americans.[4]

[3] Specifically, these are the Shared Socioeconomic Pathways scenarios 1-.26, 2-4.5, and 3-7.0, which were developed by an international community of climate modeling experts. In contrast to the Budget policy path, each of these alternate climate scenarios accounts for the estimated effects of future emissions on future changes in temperatures, which, in turn, affect future GDP projections. The damages from these scenarios on GDP are estimated using a composite of recent, peer-reviewed models. For more detail, please see the 2023 CEA-OMB white paper on "Methodologies and Considerations for Integrating the Physical and Transition Risks of Climate Change into Macro-Economic Forecasting for the President's Budget."

[4] For more information, please see Chapter 10, "Budget Exposure to Increased Costs and Lost Revenue Due to Climate Change," in this volume.

Chart 3-5. Alternative Health Care Costs



Future Pandemics.— A future pandemic could also have a large impact on both the economy and the Federal balance sheet. While these impacts are not quantified here, during the COVID-19 pandemic, the U.S. Government provided around $4.6 trillion to support the American taxpayer, including expanded unemployment benefits, small business cash infusions, payments to families to cover child-related expenses, and checks to over 170 million Americans. In spite of these well-targeted investments, the lost economic output due to the pandemic could have been as high as $1.5 trillion as of the end of 2021. Globally, the estimated direct effect of a pandemic-induced economic slowdowns ranges from between 0.5 to 2.0 percent of global GDP. While harder to calculate, there were also increased indirect costs due to increased mortality and lost human capital.

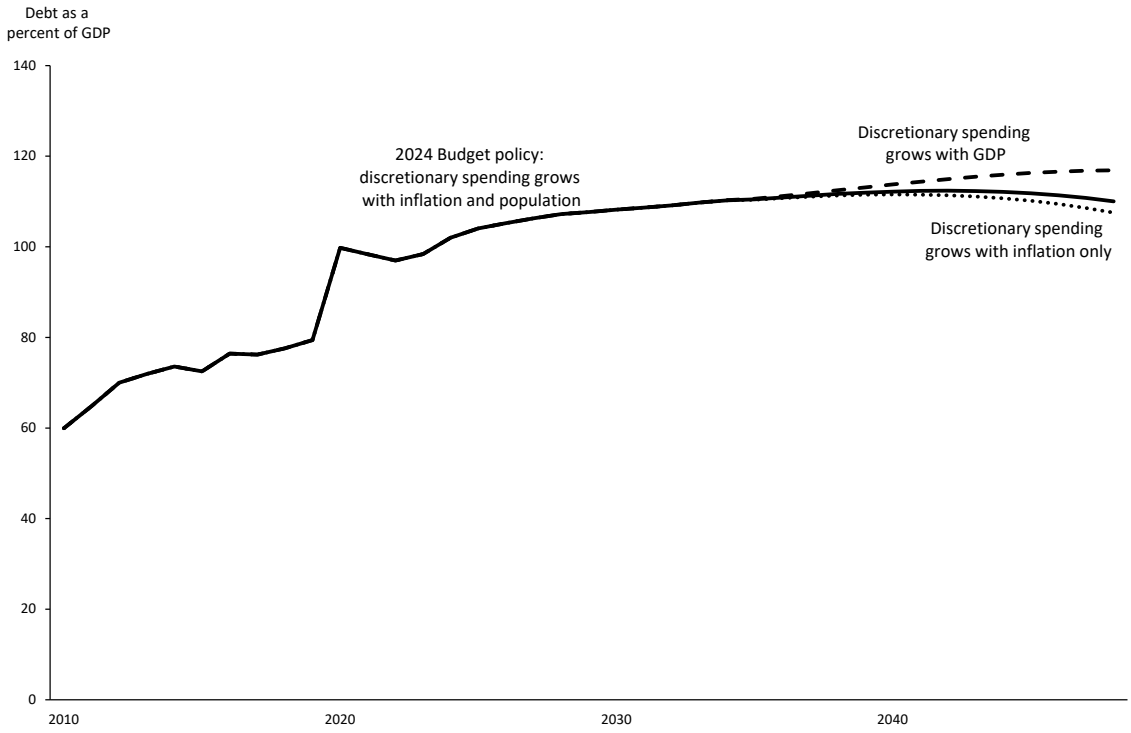
To address these risks, the Budget includes transformative investments in pandemic preparedness. These investments are intended to reduce harm to lives and livelihoods. But they also could lead to better long-term economic and fiscal outcomes than what we would expect if these investments were not made.

Healthcare Cost Growth.— Another significant source of uncertainty is healthcare cost growth. As noted above, the baseline projections follow the Medicare Trustees in assuming that, on average, Medicare per-beneficiary costs annually grow about 1.2 percentage points faster than GDP per capita ("excess cost growth") over the next 25 years, starting at high excess growth rates that steadily approach zero. A primary input to these projections is overall national health expenditures, the sum of all private and government health expenditures. In the past, especially prior to 1990, national health expenditures grew even more rapidly than the economy. For example, throughout the 1980s, national health per-beneficiary costs grew 3.1 percentage points faster than GDP per capita. However, on average since 2010, per-enrollee healthcare costs have grown roughly in line with GDP, with particularly slow growth in Federal health expenditures for Medicare and Medicaid.

Chart 3-5 shows the debt ratio in 25 years under different healthcare cost growth trajectories, reflecting the variability of recent trends in healthcare cost growth. If excess healthcare cost growth was 0.5 percentage points faster than the Medicare Trustees' projections, the debt ratio in 25 years would increase from 110.0 percent of GDP under the base case Budget policy to 123.3 percent of GDP, with larger deviations every year thereafter. In contrast, if excess healthcare cost growth was 0.5 percentage points slower than the Medicare Trustees' projections, the debt-to-GDP ratio would peak in 2034 and debt would fall to 99.2 percent of GDP by the end of the 25-year period. This slower trajectory more closely aligns with recent trends.

Tax Policy.— Policy choices will also have a large impact on long-term budget deficits and debt, as evident from the discussion of the 2024 Budget proposals. Small permanent changes can have significant long-term impacts. In the base case policy projections, revenues gradually increase with rising real income, since real bracket

Chart 3-6. Alternative Discretionary Assumptions



creep—the change in average tax rates as taxpayers' incomes rise faster than tax bracket thresholds—increases individual income taxes as a share of GDP. If receipts remain a constant percent of GDP after the budget window, the debt ratio would be expected to increase compared to the base case.

Discretionary Growth Rates.— The base case policy projections for discretionary programs assume that after 2033, discretionary spending grows with inflation and population (see Chart 3-6). Alternative assumptions could include growing discretionary spending with GDP or with inflation only. At the end of the 25-year horizon, the debt ratio ranges from 107.6 percent of GDP in the inflation-only case to 116.9 percent of GDP in the GDP case, with the base case falling in the middle.

Interest Rates.— A final major source of uncertainty is interest rates. A rise in real interest rates would increase the burden of debt, forcing the Federal Government to raise additional revenue, reduce spending, or increase borrowing in order to pay off old debt. Over the last two decades, interest rate projections have been, on average, too high. Chart 3-7 shows the path of actual ten-year Treasury rates from 2000 to 2022, along with previous Administration forecasts for the ten-year Treasury rate. Chart 3-8 shows the equivalent chart for CBO forecasts. Table 2-5 of Chapter 2, "Economic Assumptions," shows the average forecast errors in economic projections from past Federal budgets, CBO, and the Blue Chip panel of professional forecasters. On average, all three groups of forecasters have been about 0.6 percentage points too high in projecting the three-month Treasury rate two years into the future and about 2.1 percentage points too high projecting the same rate six years out.

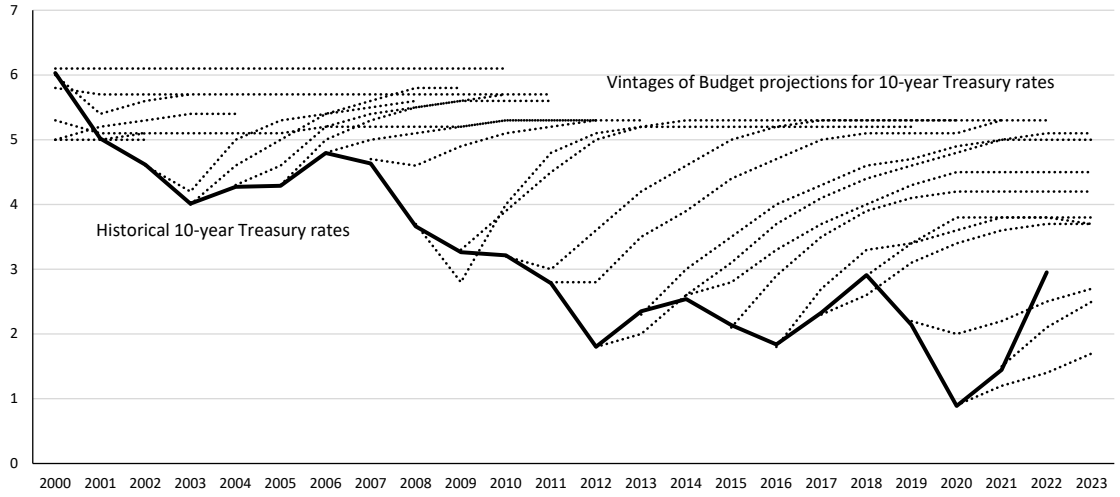
The Administration's forecast for interest rates over the next decade show the ten-year Treasury note rate stabilizing to 3.4 percent in 2033. Beyond 2033, this chapter's projections assume interest rates stay constant at the 2033 level. If the actual interest rate path were lower, this would result in a lower debt-to-GDP ratio over the long run. Alternatively, as CBO projects, interest rates could continue to rise after the ten-year budget window, which would result in a higher debt-to-GDP ratio over the long run. While rates have risen recently, the Blue Chip panel of professional forecasters, as of October 2022, has a consensus forecast for the 2033 ten-year Treasury note rate of 3.1 percent, lower than the Administration's forecast.[5]

Actuarial Projections for Social Security and Medicare

While the Administration's long-run projections focus on the unified budget outlook, Social Security Old-Age and Survivors Insurance and Disability Insurance (OASDI) and Medicare Hospital Insurance (HI) benefits are paid out of trust funds financed almost entirely by dedicated payroll tax revenues. Projected trust fund revenues fall

[5] Long range projections of the Blue Chip panel are only collected twice a year. As of the time of this writing, the October 2022 survey is the most current one available.

Chart 3-7. Historical Values and Budget Projections for 10-Year Treasury Rates



short of the levels necessary to finance projected benefits over the next 75 years.

The Social Security and Medicare Trustees' reports feature the actuarial balance of the trust funds as a summary measure of their financial status. For each trust fund, the actuarial balance is calculated as the magnitude of change in receipts or program benefits (expressed as a percentage of taxable payroll) that would be needed to preserve a small positive balance in the trust fund at the end of a specified time period. The estimates cover periods ranging in length from 25 to 75 years.

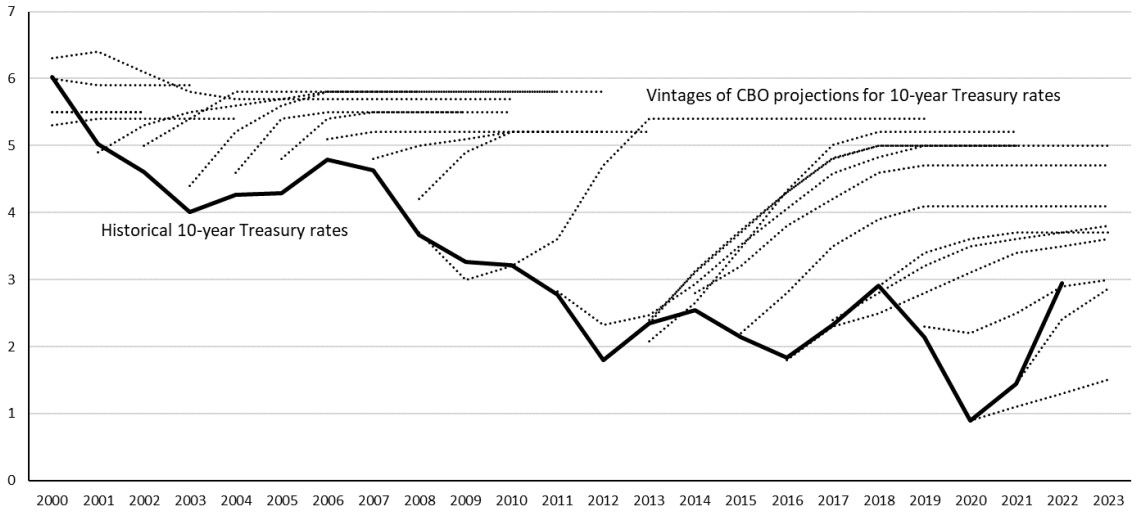
Table 3-2 shows the projected income rate, cost rate, and annual balance for the Medicare HI and combined OASDI trust funds at selected dates under the Trustees' intermediate assumptions in the 2022 reports. There is a continued imbalance in the long-run projections of the HI program due to revenues that do not match costs over time. According to the 2022 Trustees' report, the HI trust fund reserves are projected to become depleted in 2028; in that year, dedicated revenues would be expected to be able to cover 90 percent of scheduled payments. The President's Budget includes proposals that will extend the solvency of the Medicare trust fund by at least 25 years.

The 2022 Social Security Trustees' report projects that under current law, there is a long-term mismatch between program revenue and costs. Social Security is currently drawing on its trust fund reserves to cover the revenue shortfall. Over time, as the ratio of workers to retirees falls, costs are projected to rise further while revenues excluding interest are projected to rise less rapidly. In the process, the Social Security trust fund reserves, which were built up since 1983, would be drawn down and eventually become depleted in 2035, based on the projections in the 2022 report. At that point, the dedicated revenues could pay for 80 percent of program expenditures for the rest of 2035, declining to 74 percent for 2096.

Table 3–2. INTERMEDIATE ACTUARIAL PROJECTIONS FOR OASDI AND HI, 2022 TRUSTEES' REPORTS

	2021	2022	2031	2040	2090
	Percent of Payroll				
Medicare Hospital Insurance (HI):					
Income Rate	3.4	3.4	3.7	3.8	4.4
Cost Rate	3.4	3.4	4.2	4.8	4.9
Annual Balance	0.0	0.0	–0.5	–1.0	–0.5
Projection Interval:			25 years	50 years	75 years
Actuarial Balance			–0.8	–0.8	–0.7
	Percent of Payroll				
Old Age Survivors and Disability Insurance (OASDI):					
Income Rate	12.4	12.8	13.2	13.3	13.4
Cost Rate	13.9	14.1	15.9	16.7	17.8
Annual Balance	–1.5	–1.3	–2.7	–3.4	–4.4
Projection Interval:			25 years	50 years	75 years
Actuarial Balance			–2.2	–3.0	–3.4

Chart 3-8. Historical Values and CBO Projections for 10-Year Treasury Rates



The long-term budget projections in this chapter assume that benefits would continue to be paid in full despite the projected depletion of the trust fund reserves through a hypothetical change in law that would provide general revenue transfers as needed.

TECHNICAL NOTE: SOURCES OF DATA AND METHODS OF ESTIMATING

The long-run budget projections are based on actuarial projections for Social Security and Medicare as well as demographic and economic assumptions. A simplified model of the Federal budget, developed at OMB, is used to compute the budgetary implications of these assumptions after the ten-year budget window.

Demographic and Economic Assumptions.— For the years 2023-2033, the assumptions are drawn from the Administration's economic projections used for the 2024 Budget. The economic assumptions are extended beyond this interval by holding the inflation rate, interest rates, and the unemployment rate constant at the levels assumed in the final year (2033) of the Budget forecast. Population growth and labor force growth are extended using the intermediate assumptions from the 2022 Social Security Trustees' report. The projected rate of growth for real GDP is built up from the labor force assumptions and an assumed rate of productivity growth. Productivity growth, measured as real GDP per hour, is assumed to equal its terminal annual rate of growth in the Budget's economic assumptions, less the short-run effects of proposed policies: 1.7 percent per year.

The CPI inflation rate is held constant at 2.3 percent per year, the unemployment rate is held constant at 3.8 percent, the yield to maturity on ten-year Treasury notes is held constant at 3.4 percent, and the 91-day Treasury bill rate is held constant at 2.5 percent. Consistent with the demographic assumptions in the Trustees' reports, U.S. population growth slows slightly from an average of about 0.5 percent per year during the budget window to about three-quarters of that rate by the end of the 25-year projection period. Real GDP growth is projected to be less than its historical average of around 2.5 percent per year, because the slowdown in population growth and the increase in the population over age 65 reduce labor supply growth. In these projections, real GDP growth averages 2.1 percent per year for the period following the end of the ten-year budget window. The economic and demographic projections described above are set exogenously and do not change in response to changes in the budget outlook across the alternate scenarios presented in this chapter.

Baseline Projections.— For the period through 2033, receipts and outlays in the baseline and policy projections follow the 2024 Budget's baseline and policy estimates respectively. Outside the budget window, discretionary spending grows at the rate of inflation and population growth. Long-run Social Security spending is projected by the Social Security actuaries using this chapter's long-run economic and demographic assumptions. Medicare benefits follow a projection of beneficiary growth and excess healthcare cost growth from the 2022 Medicare Trustees' report current law baseline. Excess cost growth for private health insurance is assumed to grow at a rate that averages the excess cost growth assumed in the Medicare actuarial assumptions and provided in their Illustrative Alternative. In these projections, private health insurance excess cost growth averages 1.0 percent after 2033. Medicaid outlays are based on the economic and demographic projections in the model, which assume average excess cost growth of approximately 0.8 percentage points

above growth in GDP per capita after 2033. Other entitlement programs are projected based on rules of thumb linking program spending to elements of the economic and demographic projections such as the poverty rate. Individual income tax revenues are projected using a microsimulation model that incorporates real bracket creep. Corporate tax and other receipts are projected to grow with GDP.