3. LONG-TERM BUDGET OUTLOOK

The 2021 President's Budget improves the Federal Government's long-term fiscal picture by responsibly controlling spending and increasing efficiencies Government-wide. This chapter demonstrates the positive impact of the Administration's policies by comparing long-term budget forecasts under current policy (baseline projections) with forecasts based on the 2021 Budget proposals (policy projections). Baseline projections indicate that the deficit and debt held by the public will continue at elevated levels beyond the 10-year window. Conversely, policy projections indicate that enacting the Budget's proposed reforms could reduce deficits and publicly held debt as a percentage of GDP.

Chart 3-1 shows the path of debt as a percent of GDP under continuation of current policy, *without* the proposed changes in the President's Budget, as well as the debt trajectory under the President's policies. Under current policy, the ratio of debt to GDP is about the same in 2020 (80.5 percent) as in 2030 (80.4 percent). In contrast, the debt ratio is projected to be 66.1 percent in 2030 under the proposed policy changes. By the end of the 25-year horizon, there is a notable difference in the debt burden—68.4 percent of GDP under current policy compared to 23.3 percent of GDP under Budget policy. The savings proposed by the Administration from 2021-2030 are a significant down payment toward reducing the debt and reaching a balanced budget by 2035.

The projections in this chapter are highly uncertain. Small changes in economic or other assumptions can cause large differences to the results, especially for projections over longer horizons. For instance, the 2018 Financial Report of the U.S. Government presents long-run projections using different assumptions.[1]

The chapter is organized as follows:

- The first section details the assumptions used to create the baseline projections and analyzes the long-term implications of leaving current policies in place. This forecast serves as a point of comparison against the proposals in the 2021 Budget in the second section.

- The second section demonstrates how the Administration's policies will alter the current trajectory of the Federal budget by reducing deficits and debt, and balancing the budget by 2035 under a long-term extension of the Budget's policies.

- The third section discusses alternative assumptions about the evolution of key variables and uncertainties in the resulting projections.

- The fourth section discusses the actuarial projections for Social Security and Medicare.

- The appendix provides further detail on data sources, assumptions, and other methods for estimation.

Long-Run Projections under Continuation of Current Policies

For the 10-year budget window, the Administration produces both baseline projections, which show how deficits and debt would evolve under current policies, and projec-

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[1] Available here: *https://fiscal.treasury.gov/reports-statements/financial-report/*.

Chart 3-1. Comparison of Publicly Held Debt
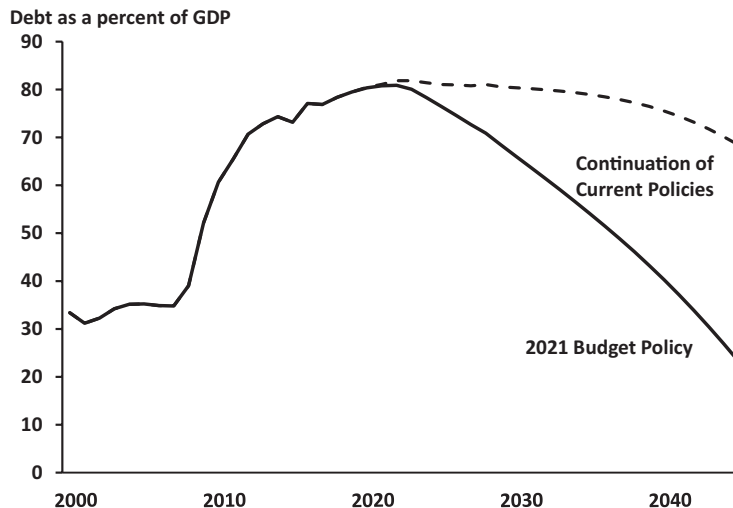
tions showing the impact of proposed policy changes. Like the budget baseline more generally, long-term projections should provide policymakers with information about the Nation's expected fiscal trajectory in the absence of spending and tax changes. Consistent with the methodology used in the 2018 and 2019 Budgets, the 2021 long term extension uses separate economic assumptions for baseline and policy projections to ensure the policy projections account for the anticipated economic feedback resulting from proposed Administration policies. For more information about the baseline and policy economic assumptions, see Chapter 2, "Economic Assumptions and Overview."

The baseline long-term projections assume that current policy continues for Social Security, Medicare, Medicaid, other mandatory programs, and revenues.[2] Projections for all mandatory programs maintain consistency with other Federal agency projections, and grow at an average annual nominal rate of about 5 percent from 2021-2045. For discretionary spending, it is less clear how to project a continuation of current policy. After the expiration of the statutory caps in 2021, both the Administration's and CBO's 10-year baselines assume that discretionary funding levels generally grow slightly above the rate of inflation (about 2.4 percent per year) per statutory baseline rules. Thereafter, the baseline long-run projections assume that per-person discretionary funding remains constant.

Over the next 10 years, debt in the baseline projections rises from 80.5 percent of GDP in 2020 to 81.1 percent of GDP in 2025 and then falls back to 80.4 percent of GDP in 2030. Beyond the 10-year horizon, debt continues to decrease slowly, reaching 68.4 percent of GDP by 2045, the end of the 25-year projection window. As discussed in the "Economic Assumptions and Overview" chapter, elevated levels of debt that are higher than the historical postwar average of 45 percent of GDP could pose a risk to economic growth.

Implementation of Administration policies.— The baseline reflects the implementation of some Administration policies, such as the TCJA and deregulation efforts, which improve the economic outlook in the 25-year window. Regulatory burden reductions and permanent corporate income tax cuts, along with other tax reforms in the TCJA, have promoted job creation and will help partially offset the effects of rapid healthcare cost growth.

Aging Population.— In the past several years, an aging population has put significant pressure on the Budget. Consistent with the demographic assumptions in the 2019 Medicare and Social Security Trustees' reports, U.S. population growth slows during the 25-year window while baby boomers retire through the mid-2030s. This slowdown drove baseline projections in past Budgets, as Social Security costs relative to GDP grew. Social Security costs relative to GDP have plateaued in baseline projections, and no longer contribute significantly to changes in the debt-to-GDP ratio over the 25-year window.

Health Costs.— Healthcare costs per capita have risen much faster than per-capita GDP growth for decades, thus requiring both public and private spending on healthcare to increase as a share of the economy. While in recent years spending per enrollee has grown roughly in line with, or more slowly than, per-capita GDP in both the public and private sectors, this slower per-enrollee growth is not projected to continue.

Based on projections of Medicare enrollment and expenditures included in the 2019 Medicare Trustees Report, the projections here assume that Medicare per-beneficiary spending growth will increase, with the growth rate averaging about 1.0 percentage point above the growth rate of GDP over the next 25 years. (This average growth rate is still below the historical average for the last 25 years.)

Revenues and Discretionary Spending.— The increase in revenues as a percent of GDP occurs primarily because individuals' real, inflation-adjusted incomes grow over time, and so a portion of their income falls into higher tax brackets. (Bracket thresholds are indexed for inflation but do not grow in real terms.) This restrains deficits relative to GDP, partially offsetting the pressure from increases in spending for health programs.
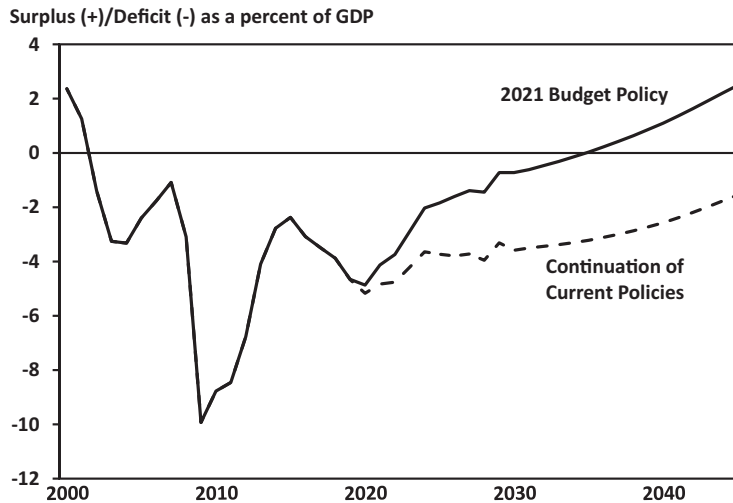
The Impact of 2021 Budget Policies on the Long-Term Fiscal Outlook

The impact of the 2021 Budget is projected using economic assumptions that account for the economic feedback of the Administration's policies. In addition to successfully negotiated free trade agreements, the policy economic assumptions assume full achievement of the Administration's policy agenda with respect to deregulation, infrastructure, fiscal consolidation, and labor market policies designed to incentivize higher labor force participation.

To show the long-term effects of implementing new policies, expenditures and revenues are extended through the 25-year timeframe. The President's 2021 Budget proposals reduce deficits by decreasing non-defense discretionary and mandatory spending over the next 10 years while protecting or increasing funding for border security, addressing the opioid crisis, law enforcement, childcare, veterans' healthcare, infrastructure, and workforce development. Beyond the 10-year window, most categories of mandatory spending grow at the same rates as under the baseline projections, discretionary outlays grow with inflation and population, and revenues continue to rise as the result of a growing economy. Details about the assumptions are available in the appendix.

As shown in Chart 3-2, 2021 Budget policies reduce the deficit to 0.7 percent of GDP by 2030 and ultimately lead to a balanced budget by 2035. At the end of the 25-year horizon, the debt ratio would be the lowest since before

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[2] 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 extension of the individual income tax and estate tax provisions of the Tax Cuts and Jobs Act beyond their expiration in 2025, and also 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 10-year window are detailed in the appendix to this chapter.

Chart 3-2. Comparison of Annual Surplus/Deficit

Surplus (+)/Deficit (-) as a percent of GDP

1981, representing significant progress in reducing the Federal debt burden.

One way to quantify the size of the Nation's long-term fiscal challenges is to determine the size of the increase in taxes or reduction in non-interest spending needed to reach a target debt-to-GDP ratio over a given period. There is no one optimal debt ratio, but one illustrative target is reaching the average postwar debt ratio of 45 percent. Policy adjustments of about 1.3 percent of GDP would steer the debt ratio to the postwar average by the end of the 25-year horizon. In comparison, the President's Budget policies are projected to decrease the debt ratio within the 10-year window and reduce it to the postwar average by 2039, more than satisfying the definition of fiscal sustainability as a declining debt-to-GDP ratio over the long term.

The Budget achieves these fiscal goals through promoting economic growth and security while improving the efficiency of the Federal Government. For example, the President's Budget includes the economic benefits of a more expansive trade deal with China while continuing reductions of regulatory burden will promote job creation and extending tax reform will allow families to keep more of their earnings. In addition, the Budget proposes streamlining Medicare to make it a better deal for seniors and the Government. Eliminating fraud, waste, and abuse from Medicare contributes to a lower debt and deficit in the long run.

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 accurate short-run budget forecasting quite difficult. For example, the Budget's projection of the deficit in five years is 1.9 percent of GDP, but a distribution of probable outcomes

ranges from a deficit of 7.0 percent of GDP to a surplus of 3.3 percent of GDP, at the 10th and 90th percentiles, respectively. Results from the following alternatives are presented in Table 3-1.

Productivity and Interest Rates.—The rate of future productivity growth has a major effect on the long-run budget outlook (see Chart 3-3). Higher productivity growth improves the budget outlook, because it adds directly to the growth of the major tax bases while having a smaller effect on outlay growth. Productivity growth is also highly uncertain. For much of the last century, output per hour in nonfarm business grew at an average rate of around 2.2 percent per year, but there were long periods of sustained productivity growth at notably higher and lower rates than the long-term average. The base case long-run projections assume that real GDP per hour worked will grow at an average annual rate of 2.3 percent per year and assume interest rates on 10-year Treasury securities of 3.2 percent. The alternative scenarios illustrate the effect of raising and lowering the projected productivity growth rate by 0.25 percentage point and changing interest rates commensurately. At the end of the 25-year

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

2021 Budget Policy	23.3
Health:	
Excess cost growth averages 1.5%	39.7
Discretionary Outlays:	
Grow with GDP	29.2
Revenues:	
Revenues steady as a share of GDP, with bracket creep	27.0
Productivity and Interest:[1]	
Productivity grows by 0.25 percentage point per year faster than the base case	9.4
Productivity grows by 0.25 percentage point per year slower than the base case	41.6

[1] Interest rates adjust commensurately with increases or decreases in productivity.

Chart 3-3. Alternative Productivity and Interest Assumptions

Debt as a percent of GDP
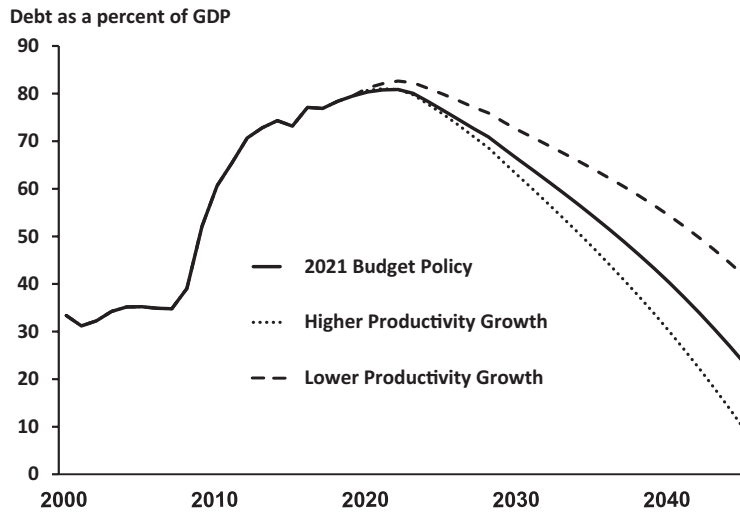
horizon, the public debt ranges from 9.4 percent of GDP in the high productivity scenario to 41.6 percent of GDP in the low productivity scenario. This variation highlights the importance of investment and smart tax policy, which can contribute to higher productivity.

Health Spending.—Healthcare cost growth represents another major source of uncertainty in the long-term budget projections. As noted above, the baseline projections follow the Medicare Trustees in assuming that Medicare per-beneficiary costs grow an average of about 1.0 percentage point faster than GDP growth over the next 25 years. However, in the past, especially prior to 1990, healthcare costs grew even more rapidly. Over the last few years, per-enrollee healthcare costs have grown roughly in line with or more slowly than GDP, with particularly slow growth in Medicare and Medicaid.
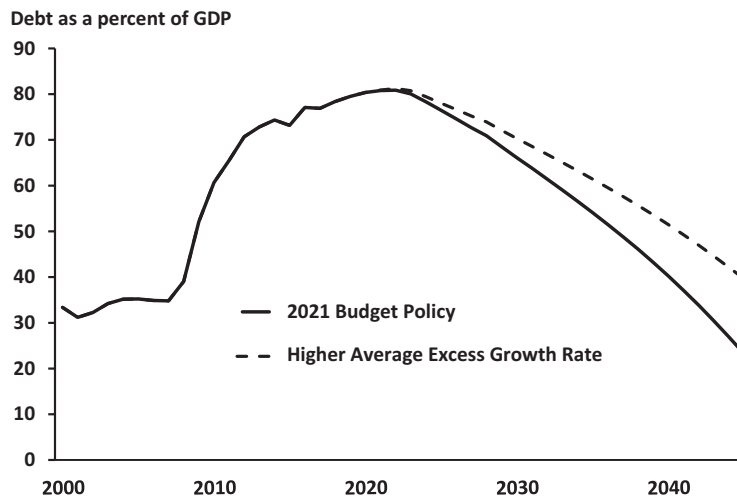
Chart 3-4 shows the large impacts that faster healthcare cost growth would have on the budget. If healthcare cost growth averaged 1.5 percentage points faster than GDP growth, the debt ratio in 25 years would increase

from 23.3 percent of GDP under the base case Budget policy to 39.7 percent of GDP.

Policy Assumptions.—As evident from the discussion of the 2021 Budget proposals, policy choices will also have a large impact on long-term budget deficits and debt. The base case policy projections for discretionary spending assumes that after 2030, discretionary outlays grow with inflation and population (see Chart 3-5). An alternative assumption is to grow discretionary spending with GDP only. At the end of the 25-year horizon, the debt ratio ranges from 23.3 percent of GDP in the base case to 29.2 percent of GDP if discretionary spending grows with GDP.

In the base case policy projections, revenues gradually increase with rising real incomes. Chart 3-6 shows an alternative receipts assumption in which receipts remain a constant percent of GDP after the budget window. At the end of the 25-year horizon, the debt ratio increases from 23.3 percent of GDP in the base case to 27.0 percent of GDP in the alternative case.

Chart 3-4. Alternative Health Care Costs

Debt as a percent of GDP

Chart 3-5. Alternative Discretionary Assumptions

Debt as a percent of GDP

— 2021 Budget Policy: Discretionary Spending Grows with Inflation and Population

- - Discretionary Spending Grows with GDP
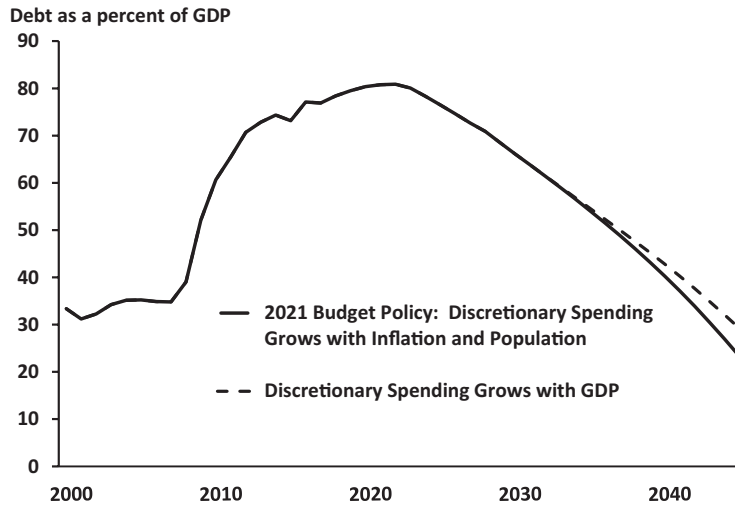
Finally, Chart 3-7 shows how uncertainties compound over the forecast horizon. As the chart shows, under the base case Budget policy projections, debt declines to 23.3 percent of GDP in 2045. Alternatively, assuming a combination of slower productivity growth and faster healthcare cost growth results in less debt reduction, with the debt ratio reaching 59.0 percent by the end of the window. Meanwhile, assuming a combination of higher productivity growth and slower healthcare cost growth results in the debt ratio reaching 4.4 percent in 2045.

Despite considerable uncertainties, long-term projections are helpful in highlighting some of the budget challenges on the horizon, especially the impact of healthcare costs. In addition, the wide range of the projections highlight the need for policy awareness of key drivers of future budgetary costs and potential action to address them.
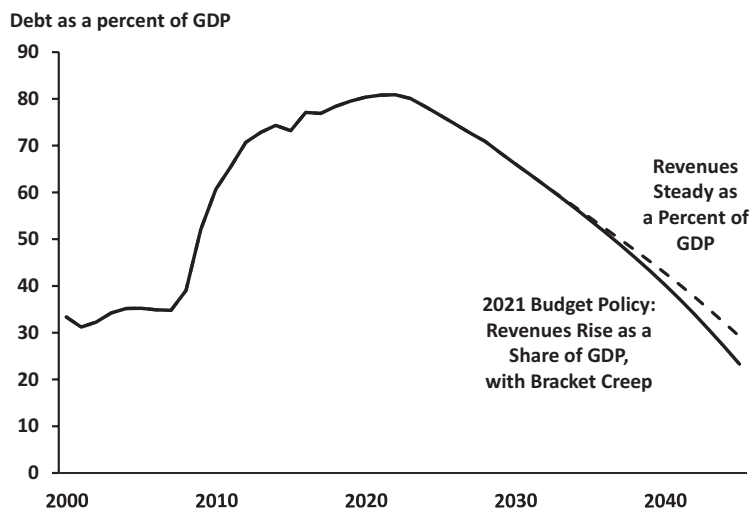
Actuarial Projections for Social Security and Medicare

While the Administration's long-run projections focus on the unified budget outlook, Social Security and Medicare Hospital Insurance benefits are paid out of trust funds financed by dedicated payroll tax revenues. Projected trust fund revenues fall short of the levels necessary to finance projected benefits over the next 75 years.
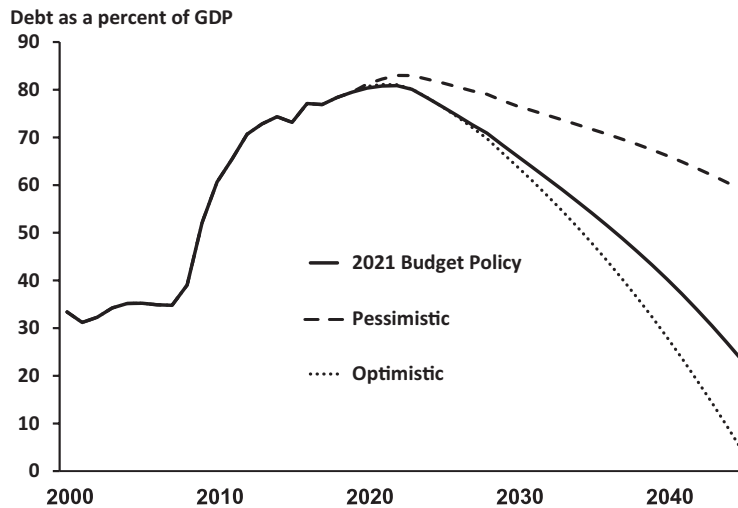
The Social Security and Medicare Trustees' reports feature the actuarial balance of the trust funds as a summary measure of their financial status. For each trust fund, the balance is calculated as the change in receipts or program benefits (expressed as a percentage of taxable payroll) that would be 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.

Under the Medicare Modernization Act (MMA) of 2003, the Medicare Trustees must issue a "warning"

Chart 3-6. Alternative Revenue Assumptions

Debt as a percent of GDP

Revenues Steady as a Percent of GDP

2021 Budget Policy: Revenues Rise as a Share of GDP, with Bracket Creep

Chart 3-7. Long Term Uncertainties

Debt as a percent of GDP

when two consecutive Trustees' reports project that the share of Medicare funded by general revenues will exceed 45 percent in the current year or any of the subsequent six years. Like the 2017 and 2018 Trustees' Report, the 2019 Trustees' Report made a determination of excess revenues and therefore issued a Medicare funding warning. The MMA requires that, because a Medicare funding warning has been issued, the President submit proposed legislation responding to that warning, within 15 days of submitting the Budget. In accordance with the Recommendations Clause of the Constitution and as the Executive Branch has noted in prior years, the Executive Branch considers a requirement to propose specific legislation to be advisory.

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 2019 reports. There is a continued imbalance in the long-run projections of the HI program due to demographic trends and continued high per-person costs. According to the 2019 Trustees' report the HI trust fund is projected to become insolvent in 2026.

As a result of reforms legislated in 1983, Social Security ran an annual cash surplus with taxes exceeding costs through 2009. This surplus in the Social Security trust fund helped to hold down the unified budget deficit. The last year of annual cash surplus was 2009; in 2010, the trust fund began using a portion of its interest earnings to cover benefit payments. The 2019 Social Security Trustees' report projects that under current law, the trust fund will not return to annual cash surplus and that the program will start to experience an overall deficit starting in 2020. After that, Social Security will begin to draw on its trust fund balances to cover current expenditures. 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

Table 3–2.   INTERMEDIATE ACTUARIAL PROJECTIONS FOR OASDI AND HI, 2019 TRUSTEES' REPORTS

	2018	2020	2030	2040	2090
			Percent of Payroll		
Medicare Hospital Insurance (HI):					
Income Rate	3.3	3.4	3.6	3.8	4.4
Cost Rate	3.4	3.5	4.4	4.9	5.3
Annual Balance	−0.1	−0.2	−0.7	−1.1	−0.9
Projection Interval:			25 years	50 years	75 years
Actuarial Balance			−0.8	−0.9	−0.9
			Percent of Payroll		
Old Age Survivors and Disability Insurance (OASDI):					
Income Rate	12.7	12.9	13.2	13.3	13.4
Cost Rate	13.8	13.9	15.8	16.6	17.4
Annual Balance	−1.1	−1.1	−2.6	−3.3	−4.0
Projection Interval:			25 years	50 years	75 years
Actuarial Balance			−1.7	−2.4	−2.8

since 1983, would be drawn down and eventually be exhausted in 2035. These projections assume that benefits would continue to be paid in full despite the projected exhaustion of the trust fund reserves to show the long-run cost of maintaining current benefit formulas. Under current law, not all scheduled benefits could be paid after the trust funds reserves are exhausted. However, benefits could still be partially funded from current revenues. According to the 2019 Trustees' report, beginning in 2035, 80 percent of projected Social Security scheduled benefits would be funded. This percentage would eventually decline to 75 percent by 2093.

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.

Demographic and Economic Assumptions.—For the years 2020-2030, the assumptions are drawn from the Administration's economic projections used for the 2021 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 (2030) of the budget forecast. Population growth and labor force growth are extended using the intermediate assumptions from the 2019 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 average annual rate of growth in the Budget's economic assumptions—2.3 percent per year.

Under Budget policies, the CPI inflation rate is held constant at 2.3 percent per year, the unemployment rate is held constant at 4.0 percent, the yield to maturity on 10-year Treasury notes is constant at 3.2 percent, and the 91-day Treasury bill rate is kept at 2.5 percent. Consistent with the demographic assumptions in the Trustees' reports, U.S. population growth slows from an average of just over 0.7 percent per year during the budget window to about three-quarters of that rate by 2040, and slower rates of growth beyond that point. By the end of the 25-year projection period total population growth is slightly below 0.5 percent per year. Real GDP growth is projected to be less than its historical average of around 2.8 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 between 2.6 percent and 2.8 percent per year for the period following the end of the 10-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. This makes it easier to interpret the comparisons of alternative policies.

Budget Projections.—For the period through 2030, receipts and outlays in the baseline and policy projections follow the 2021 Budget's baseline and policy estimates respectively. Discretionary spending grows at the rate of growth in inflation and population outside the budget window. Long-run Social Security spending is projected by the Social Security actuaries using this chapter's long-run economic and demographic assumptions. Medicare benefits are projected based on a projection of beneficiary growth and excess healthcare cost growth from the 2019 Medicare Trustees' report current law baseline. For the policy projections, these assumptions are adjusted based on the Budget proposal to streamline Medicare. Medicaid outlays are based on the economic and demographic projections in the model, which assume average excess cost growth of approximately 0.9 percentage point above growth in GDP per capita after 2030. For the policy projections, these assumptions are adjusted based on the Budget proposals to reform Medicaid funding. 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.