

Table 2-8. THE STRUCTURAL BALANCE

(Fiscal years; in billions of dollars)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Unadjusted surplus (–) or deficit	459	1,413	1,293	1,300	1,087	680	649	564	531	458	413	503	512	504	530	482	434
Cyclical component	–41	283	404	399	363	389	373	314	224	127	49	12	–4	2	–2	0	–0
Structural surplus (–) or deficit	500	1,129	889	900	724	290	276	249	307	331	364	491	516	501	532	481	434

(Fiscal years; percent of Gross Domestic Product)																	
Unadjusted surplus (–) or deficit	3.1%	9.8%	8.7%	8.4%	6.8%	4.1%	3.7%	3.1%	2.8%	2.3%	1.9%	2.3%	2.2%	2.1%	2.1%	1.8%	1.6%
Cyclical component	–0.3%	2.0%	2.7%	2.6%	2.3%	2.3%	2.2%	1.7%	1.2%	0.6%	0.2%	0.1%	–0.0%	0.0%	–0.0%	0.0%	–0.0%
Structural surplus (–) or deficit	3.4%	7.8%	6.0%	5.9%	4.5%	1.7%	1.6%	1.4%	1.6%	1.6%	1.7%	2.2%	2.2%	2.1%	2.1%	1.8%	1.6%

NOTE: The NAIRU is assumed to be 5.4%.

ther ahead in the future for which the year the projection is made. Average errors have overestimated the current year's deficit, but have underestimated future years by increasing amounts. The error measures can be used to show a probabilistic range of uncertainty of what the range of deficit outcomes may be over the next five years relative to the Administration's deficit projection. Chart 2-4 shows this cone of uncertainty, which is constructed under the assumption that future forecast errors would be governed by the normal distribution with a mean of zero and standard error equal to the root mean squared error, as a percent of GDP, of past forecasts. The deficit is projected to be 2.3 percent of GDP in 2019, but has a 90 percent chance of being within a range of a surplus of 4.6 percent of GDP and a deficit of 9.1 percent of GDP.

Structural and Cyclical Deficits

As shown above, the budget deficit is highly sensitive to the business cycle. When the economy is operating below its potential and the unemployment rate exceeds the level consistent with stable inflation, receipts are lower, outlays are higher, and the deficit is larger than it would be otherwise. These features serve as "automatic stabilizers" for the economy by restraining output when the economy threatens to overheat and cushioning economic downturns. They also make it hard to judge the overall stance of fiscal policy simply by looking at the unadjusted budget deficit.

An alternative measure of the budget deficit is called the structural deficit. This measure provides a more useful perspective on the stance of fiscal policy than does the unadjusted budget deficit. The portion of the deficit traceable to the response of the automatic stabilizers to the effects of the business cycle is called the cyclical component. The remaining portion of the deficit is called the structural deficit. The structural deficit is a better gauge of the underlying stance of fiscal policy than the unadjusted deficit because it removes most of the effects of the business cycle. So, for example, the structural deficit would include fiscal policy changes such as the 2009 Recovery Act, but not the automatic changes in unemployment insurance or reduction in tax receipts that would have occurred without the Act.

Estimates of the structural deficit, shown in Table 2-8, are based on the historical relationship between changes in the unemployment rate and real GDP growth, as well

as relationships of unemployment and real GDP growth with receipts and outlays. These estimated relationships take account of the major cyclical changes in the economy and their effects on the budget, but they do not reflect all the possible cyclical effects on the budget, because economists have not been able to identify the cyclical factor in some of these other effects. For example, the sharp decline in the stock market in 2008 pulled down capital gains-related receipts and increased the deficit in 2009 and beyond. Some of this decline is cyclical in nature, but economists have not identified the cyclical component of the stock market with any precision, and for that reason, all of the stock market's effect on capital gains receipts is counted in the structural deficit.

Another factor that can affect the deficit and is related to the business cycle is labor force participation. Since the official unemployment rate does not include workers who have left the labor force, the conventional measures of potential GDP, incomes, and Government receipts understate the extent to which potential work hours are under-utilized because of a decline in labor force participation. The key unresolved question here is to what extent changes in labor force participation are cyclical and to what extent they are structural. By convention, in estimating the structural budget deficit, all changes in labor force participation are treated as structural.

There are also lags in the collection of tax revenue that can delay the impact of cyclical effects beyond the year in which they occur. The result is that even after the unemployment rate has fallen, receipts may remain cyclically depressed for some time until these lagged effects have dissipated. The recent recession added substantially to the estimated cyclical component of the deficit, but for all the reasons stated above, the cyclical component is probably understated. As the economy recovers, the cyclical deficit is projected to decline. After unemployment reaches 5.4 percent, the level assumed to be consistent with stable inflation, the estimated cyclical component vanishes, leaving only the structural deficit, although some lagged cyclical effects would arguably still be present.

Despite these limitations, the distinction between cyclical and structural deficits is helpful in understanding the path of fiscal policy. The large increase in the deficit in 2009 and 2010 is due to a combination of both components of the deficit. There was a large increase in the cyclical component because of the rise in unemployment. That is

what would be expected considering the severity of the recent recession. Finally, there was a large increase in the structural deficit because of the policy measures taken to combat the recession. This reflects the Government's decision to make active use of fiscal policy to lessen the severity of the recession and to hasten economic recov-

ery. Between 2014 and 2018, the cyclical component of the deficit is projected to decline sharply to near zero as the economy recovers at an above-trend rate of GDP growth. The structural deficit shrank by six percentage points between 2009 and 2013, reflecting the relatively sharp fiscal tightening measures taken during that period.

3. LONG TERM BUDGET OUTLOOK

The horizon for the detailed estimates of receipts and outlays in the President's Budget is 10 years. This 10-year horizon balances consideration of the future impacts of budget decisions made today with the practical limits on the construction of detailed budget projections for years in the future.

Decisions made today can have important repercussions beyond the 10-year horizon. Consequently, it is important to anticipate budgetary requirements beyond the 10-year horizon, and the effects of changes in policy on those requirements, despite the uncertainty surrounding the assumptions needed for such estimates. Long-run budget projections can be useful in drawing attention to potential problems that could become unmanageable if allowed to grow.

To this end, the budget projections in this chapter extend the 2015 Budget for 75 years through 2089. Because of the uncertainties involved in making long-run projections, results are presented for a base case and for several alternative scenarios embodying various assumptions.

Legislation since 2010 has led to significant improvements in the Nation's projected long-term fiscal health. First, the passage of the Affordable Care Act (ACA) in 2010 enacted cost-reduction mechanisms in the health sector that will directly reduce deficits by more than \$1 trillion over the first two decades, according to the Congressional Budget Office (CBO), and have the potential to significantly reduce the trajectory of health spending, and future budget deficits, over the long run. Second, the Budget Control Act of 2011 (BCA) reduced the long-term outlay path by placing discretionary spending under tight limits and enacting cuts in mandatory spending through 2021. Third, enactment of the American Taxpayer Relief Act of 2012 (ATRA) increased income tax rates on the highest-income taxpayers, contributing \$700 billion to deficit reduction in the first decade and increasing long-run tax receipts above prior projections.

The 2015 Budget includes further initiatives that would help control future deficits if enacted. There is significant uncertainty surrounding any long-term budget forecast, and additional reforms will be needed to ensure that programs like Medicare Part A and Social Security, which are financed from dedicated revenue sources, remain self-sustaining. Still, the long-run projections show that overall budgetary resources would be sufficient to support future spending over the long term if Budget policies and assumptions are carried forward.

The Long-Run Budget Outlook

When the current Administration took office, the budget deficit was rising sharply because of the declining economy and measures taken to revive it. Revenues had

fallen, as a share of GDP, to their lowest level since 1950. Spending on countercyclical programs like unemployment insurance had also risen sharply. Economic recovery and spending and tax legislation have substantially reduced deficits over the last few years, and, as noted above, measures like the ACA, BCA, and ATRA will constrain future spending, increase revenues, and further narrow the deficit. The 2015 Budget also includes nearly \$2.2 trillion in additional net deficit reduction over the next 10 years. Combined with the deficit reduction already enacted, by 2018 these savings would bring the Nation to the point where current non-interest expenditures are no longer adding to debt and where debt is decreasing as a share of the economy—a key metric of fiscal sustainability.

Beyond the 10-year horizon, demographic trends and relatively high costs for health care are likely to put upward pressure on the deficits and the debt. In the projections for the decade and a half beyond 2024, deficits as a share of GDP rise from the levels at the end of the 10-year budget window, mainly because the aging of the population and the continuing high costs of health care drive up outlays for Social Security, Medicare, and Medicaid as a share of GDP. Revenues also increase as a share of GDP, but at a more measured pace, leading deficits to peak at 2.5 percent of GDP in the mid 2030s and debt to remain flat near 69 percent of GDP through 2040.

By the mid 2030s, the easing of baby boom retirements, continued restraint in discretionary spending and health costs, and gradually rising revenues due to growing household incomes turn the country on a course toward resuming the reduction in the debt-to-GDP ratio. The budget reaches balance in 2053, when revenues are 20.9 percent of GDP, slightly higher than their levels during the budget surpluses of 1998-2001. The Federal Government is then projected to run surpluses over the remainder of the projection window, with publicly held debt falling rapidly until it reaches zero in 2072 (see Chart 3-1).

The Fiscal Gap

The 75-year fiscal gap is one measure of the size of the adjustment needed to preserve fiscal sustainability in the long run.¹ It is defined as the present value of the increase in taxes or reduction in non-interest expenditures over the next 75 years required for the ratio of Government debt to GDP at the end of the period to equal its current level. The gap can be measured in present value dollars or as a percentage of present value GDP. If publicly held debt at the end of the period is projected to be lower than current debt, there is a fiscal surplus rather than a fis-

¹ Alan J. Auerbach, "The U.S. Fiscal Problem: Where We Are, How We Got Here, and Where We're Going," NBER: Macroeconomics Annual 1994, pp 141 – 175.

cal gap. Table 3–2 shows 75-year fiscal gap or surplus calculations for the base case as well as under different assumptions. These values can be interpreted as the average level of deficit change needed each year from 2015 to 2089 to maintain the current level of debt held by the public as a percentage of GDP. Since debt in the base case eventually reaches zero, the base case has a fiscal surplus of 1.8 percent of GDP, which means that deficit reduction is not needed to reach the current level of debt at the end of the 75-year period.

By comparison, last year's long-run projections showed a 75-year fiscal surplus of 1.6 percent of GDP and debt peaking at 76 percent of GDP before beginning to decline, versus 69 percent of GDP this year.

Trends Underlying the Projections

The key to long-range fiscal sustainability is balancing the Government's commitments for major health and retirement programs—Medicare, Medicaid and Social Security—with sufficient tax receipts along with control in discretionary and non-entitlement spending, while allowing for additional entitlement reforms as appropriate.

- *Medicare.* Medicare's growth has generally exceeded that of other Federal spending for decades, tracking the growth in overall health care costs. Growth in overall national health costs has slowed to historically low rates in the past few years, with a corresponding slowdown in Medicare spending that is already yielding substantial fiscal dividends. Moreover, there is increasing evidence that part of the slowdown is structural, suggesting that it may continue into the future.² Nonetheless, despite the recent slowdown and ACA reforms that will help curtail future cost growth and improve health outcomes, Medicare

spending is still projected to increase significantly as a share of the economy, due both to rising health costs and the aging population.

- *Medicaid.* Medicaid's growth has generally tracked the growth in Medicaid enrollment and overall per capita health spending, and therefore historically exceeded the growth rate of other Federal spending. Medicaid assistance will expand further beginning this year because of broadened coverage provided by the ACA. However, the ACA's reforms are also expected to reduce Medicaid per beneficiary spending growth in the long run, as Medicare cost containment spills over into the rest of the health sector.
- *Social Security.* Outlays for Social Security benefits will rise as a share of the economy over the next two decades as the population ages, putting pressure on the long-term budget.
- *Discretionary spending.* Discretionary spending for both defense and nondefense programs will continue to shrink relative to the economy as discretionary spending limits hold this form of spending to growth rates lower than inflation through 2021. It is unlikely that the growth in discretionary spending will remain lower than inflation over the very long term, so, after the end of the 10-year budget window, the projections allow for growth with inflation and population growth to effectively hold discretionary spending constant on a real per capita basis. This is a conservative assumption that results in a higher growth rate than that assumed in the 10-year baselines of the Office of Management and Budget (OMB) and the CBO in the absence of discretionary spending limits. (Because economic growth exceeds inflation and population growth, discretionary spending

² Council of Economic Advisors, "Trends in Health Care Cost Growth and the Role of the Affordable Care Act," November 2013, p 10.

Chart 3-1. Publicly Held Debt Under 2015 Budget Policy Extended

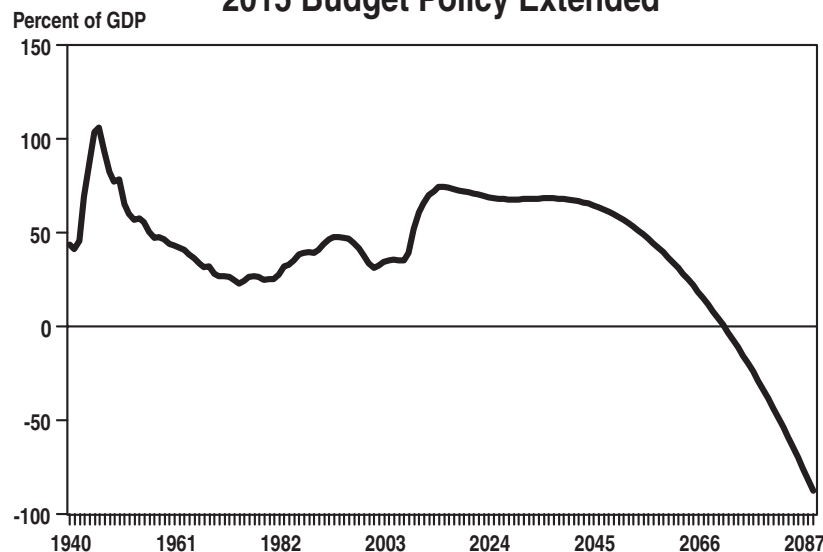


Table 3–1. LONG-RUN BUDGET PROJECTIONS
(As a Percent of GDP)

	1980	1990	2000	2010	2020	2030	2040	2050	2060	2070	2080	2085
Receipts	18.5	17.4	19.9	14.6	19.2	19.7	20.1	20.7	21.4	22.1	22.8	23.1
Outlays:												
Discretionary	9.9	8.5	6.1	9.1	5.1	4.2	3.6	3.1	2.7	2.3	2.0	1.9
Mandatory:												
Social Security	4.2	4.2	4.0	4.7	5.1	5.8	5.8	5.6	5.7	5.8	5.8	5.8
Medicare	1.1	1.6	1.9	3.0	3.0	3.8	4.3	4.4	4.6	4.7	4.8	4.8
Medicaid	0.5	0.7	1.2	1.8	1.9	2.2	2.5	2.7	2.7	2.8	2.8	2.7
Other	3.6	3.1	2.3	3.3	3.7	3.2	3.0	2.8	2.6	2.5	2.4	2.4
Subtotal, mandatory	9.4	9.6	9.4	12.9	13.7	14.9	15.6	15.5	15.5	15.8	15.8	15.8
Net interest	1.9	3.1	2.2	1.3	2.7	3.0	3.0	2.6	1.7	0.3	–1.6	–2.7
Total outlays	21.1	21.2	17.6	23.4	21.4	22.1	22.2	21.3	19.9	18.3	16.2	14.9
Surplus (+) or deficit (–)	–2.6	–3.7	2.3	–8.7	–2.2	–2.4	–2.2	–0.6	1.5	3.7	6.6	8.2
Primary Surplus (+) or deficit (–)	–0.8	–0.6	4.5	–7.4	0.4	0.6	0.9	2.1	3.2	4.0	5.0	5.5
Federal debt (+) or asset (–) held by the public, end of period	25.5	40.8	33.6	61.0	71.6	67.9	67.8	58.6	37.0	4.6	–38.1	–64.2

Note: The figures shown in this table beyond 2020 are the product of a long-range forecasting model maintained by the Office of Management and Budget. This model is separate from the models and capabilities that produce detailed programmatic estimates in the Budget. It was designed to produce long-range projections based on additional assumptions regarding growth in the economy, the long-range evolution of specific programs, and the demographic and economic forces affecting those programs. The model, its assumptions, and sensitivity testing of those assumptions are presented in this chapter.

continues to decline as a share of the economy, but more slowly.)

- **Revenues.** Without any further changes in tax law, revenues will gradually rise as a share of the economy over the 75-year horizon. This occurs because individuals' real incomes grow over time, and so a portion of their income falls into higher tax brackets (which are indexed for inflation). The projections take into account the automatic growth in revenues that would result under a continuation of 2015 Budget policies, consistent with how they treat automatic growth in Social Security, Medicare, and other mandatory spending programs.

The long-run projections presented here are not intended to be a prediction of future legislative action, nor are they intended to reflect explicit policy proposals for the years beyond 2024. In particular, it would be unrealistic and undesirable for revenues to continue to increase and discretionary spending to continue to fall as a share of GDP over the long run even as the Federal Government ran large surpluses, paid off its entire debt, and began accumulating assets, as shown in Table 3–1. The purpose of the long-run forecast shown here is simply to provide an extension of budget policies against which to evaluate the Nation's fiscal condition and potential changes in policy. The forecast shows that, under 2015 Budget policies, in the long run the budget does not run deficits or increase the debt.

Future budget outcomes depend on a host of unknowns—changing economic conditions, unforeseen international developments, unexpected demographic shifts, and the unpredictable forces of technological advance, along with future legislated changes. These uncertainties make even short-run budget forecasting quite difficult, and the uncertainties increase the further into the future projections

are extended. A full treatment of all the relevant risks is beyond the scope of this chapter, but the chapter does show how sensitive long-run budget projections are to changes in some key assumptions. Alternatives presented in this chapter range from altering assumptions for major policy levers such as discretionary spending and revenue growth to changes in economic variables such as productivity. As demonstrated later, these changes can have a dramatic effect on the long-term fiscal sustainability of the Government's finances, with debt-to-GDP ratios even 40 years in the future ranging from 49 percent in the base case to 104 percent in the most pessimistic scenario and –31 percent in the most optimistic scenario.

Key Drivers of Program Growth: Health Costs and Demographic Changes

Health Costs.—Health care costs have risen faster than inflation for decades. That growth has slowed to historic lows in the past few years. While some of the slowdown reflects the recession, there is increasing evidence that the deceleration is also due in part to structural changes. For example, since Medicare beneficiaries are typically retired or disabled, Medicare cost growth tends to be less sensitive to economic conditions than overall health care spending. But Medicare cost growth has slowed over the past few years in line with the overall slowdown in health care costs, and Medicare per-beneficiary spending growth has been below overall health care per capita growth. There is some evidence that the reforms enacted in the Affordable Care Act are already contributing to the health care cost slowdown, for example by reducing Medicare excessive payments to private insurers and providers and creating strong incentives for hospitals to reduce readmission rates. Going forward, the ACA (and additional reforms proposed in the 2015 Budget) will

**Table 3–2. 75-YEAR FISCAL GAP (–)/SURPLUS (+)
UNDER ALTERNATIVE BUDGET SCENARIOS**
(Percent of GDP)

2015 Base Case	1.8
Immigration:	
Immigration reform extended	2.6
Health:	
Excess cost growth averages 0%	3.3
Excess cost growth averages 1%	1.2
Discretionary Outlays:	
Grow with inflation	2.1
Grow with GDP	0.6
Revenues:	
Income tax brackets are regularly increased	0.6
Productivity:	
Productivity grows by 0.25 percentage point per year faster than the base case	3.7
Productivity grows by 0.25 percentage point per year slower than the base case	–0.2
Combined:	
Optimistic (higher productivity and lower health cost growth)	4.6
Pessimistic (lower productivity and higher health cost growth)	–0.7

have a larger impact on health care cost and quality, and, when the law is fully implemented, Medicare spending per beneficiary will rise at rates substantially below those at which spending has grown for four decades.

Even with these changes, however, overall health care spending is likely to continue to increase as a share of the economy as the population ages. The base case projections assume that the provisions of the ACA are fully implemented, limiting health care costs in the long run compared with prior law. The long-run Medicare assumptions for the years following the 10-year budget window are essentially the same as those in the latest Medicare Trustees' report (May 2013), except the projections include the Budget's proposal to strengthen the Independent Payment Advisory Board (IPAB) by lowering the target growth rate to 0.5 percentage points above GDP per capita.³ Generally, the IPAB mechanism helps to control excess cost growth in the two decades after the budget window, before excess cost growth dips below the proposed threshold due to the Trustees' long-range assumptions affecting the overall health sector. The Trustees' projections imply that average long-run annual growth in Medicare spending per enrollee, with current-law IPAB in place, is 0.4 percentage points per year faster than the projected growth rate in GDP per capita, but the growth rate slows to about 0.3 percentage points with a strengthened IPAB. This growth rate for Medicare is significantly smaller than previous projections prior to the

passage of the ACA—a reduction the Trustees largely attribute to the ACA-mandated changes to certain Medicare payment rates—but is higher than the projections in the 2013 Budget, when a refinement in the long-run pre-ACA cost growth assumption for Medicare was introduced, as recommended by the Medicare Technical Review Panel and included in the 2012 and 2013 Trustees' reports.

Along with the rules for Medicare, there are a number of reforms in the ACA that experts believe could produce significant savings relative to the historical trend and that would affect medical costs more broadly. One is an excise tax on the highest-cost insurance plans, which will encourage substitution of plans with lower costs, while raising take-home pay. The ACA also includes an array of delivery system reforms, including incentives for accountable care organizations and payment reform demonstrations that have the potential to re-orient the medical system toward providing higher quality care, not just more care, and thus reduce cost growth in the future.⁴ Because of these broader reforms, Medicaid spending per beneficiary and private health spending per capita are also projected to slow, though not as much as Medicare.⁵

Elderly Population.—An aging population also poses a serious long-run budgetary challenge, particularly through its effects on Social Security, Medicare, and Medicaid long-term care costs. In 2008, when the oldest members of the baby boom generation became eligible for early retirement under Social Security, the ratio of workers to Social Security beneficiaries was 3.2. That ratio is currently around 2.8, and the Social Security actuaries project it to fall to a level of 2.5 in 2021 and 2.1 in 2031, at which point most of the baby boomers will have retired. Because of lower expected fertility and improved longevity, the actuaries project that the ratio will decline very slowly thereafter, reaching 1.9 by 2089.

With fewer workers to pay the taxes needed to support the retired population, budgetary pressures will steadily mount. Social Security program costs will grow from 4.9 percent of GDP today to a peak of 5.9 percent of GDP in 2089, with about 0.5 percentage points of this growth occurring by 2024, the end of the standard 10-year budget window. Without reforms, trust fund exhaustion is projected by the Social Security Trustees to occur in 2033, after which time the Trustees project annual income to the trust funds will be sufficient to pay about 77 percent of scheduled benefits. In the projections here, however, Social Security payments are supported by transfers from general revenues, as discussed below.

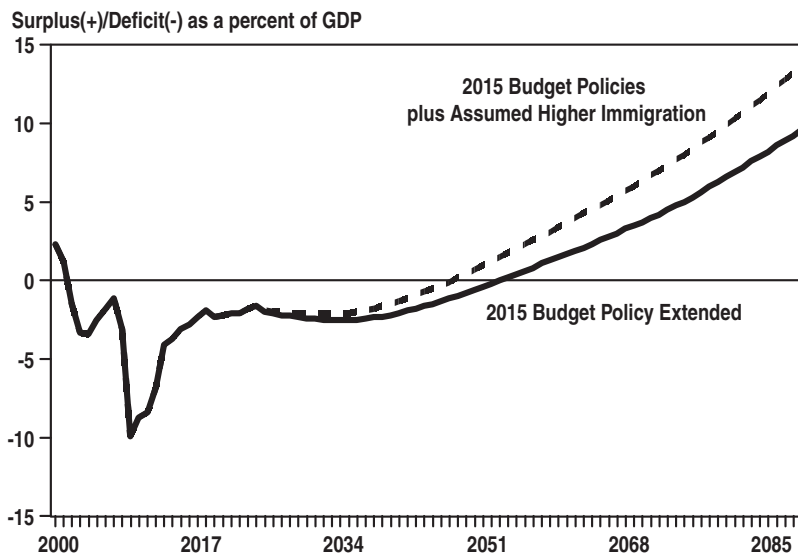
Other Programs.—Other mandatory programs are generally projected to decline relative to the size of the economy. These include Federal pension benefits for

³ The ACA established an Independent Payment Advisory Board (IPAB) that is required to propose changes in Medicare should Medicare costs exceed target growth rates specified in law; such IPAB-proposed changes would take effect automatically, unless overridden by the Congress. The Budget includes a proposal that would strengthen the IPAB mechanism by lowering the target growth rate applicable for 2020 onward from GDP +1.0 percentage points to GDP +0.5 percentage points.

⁴ Groups of providers meeting certain criteria can be recognized as accountable care organizations (ACOs), which allow them to coordinate care and manage chronic disease more easily thereby improving the quality of care for patients. ACOs can then share in any cost savings they achieve for Medicare if they meet quality standards.

⁵ The projections assume that growth in Medicaid spending per enrollee and private health spending per capita exceeds growth in GDP per capita by just under 0.7 percentage points.

Chart 3-2. Higher Immigration



Government workers. The shift in the 1980s from the traditional Federal pension benefit of the Civil Service Retirement System (CSRS) to the much smaller defined benefit pension plan of the Federal Employees Retirement System (FERS) is having a marked effect on Federal civilian pensions, which is expected to continue as FERS comes to dominate future pension projections. Recent reforms in FERS have increased employee contributions to the system, but have left the eventual FERS retirement benefit levels unchanged. As a result of the shift from CSRS to FERS, spending for Federal retirement is expected to permanently shrink relative to the size of the economy over the next 75 years. Most other entitlement programs are also expected to grow more slowly than GDP due mainly to falling poverty and population growth rates over the very long run.

Alternative Policy, Economic, and Technical Assumptions

The quantitative results discussed above are sensitive to changes in underlying policy, economic, and technical assumptions. Some of the most important of these assumptions and their effects on the budget outlook are discussed below. It is important to note that these paths are merely illustrative; they are not intended to represent the policy preferences of this Administration or the predicted actions of future Administrations and Congresses.

Immigration Reform.— While the Budget includes an allowance for deficit reduction from commonsense immigration reform, the long-term projections conservatively exclude the effects of immigration reform, with the rate of net immigration assumed to average around 1.1 million immigrants per year in the long run (see Chart 3–2).⁶

Higher net immigration relieves some of the downward pressure on population growth from low fertility and allows total population to expand throughout the projection period, although at a much slower rate than has prevailed historically. With higher net immigration flows of 0.5 million per year (roughly in line with the CBO forecasts based on the Senate-passed immigration bill's reforms to the legal immigration system), the 75-year fiscal surplus rises from 1.8 percent of 75-year present value GDP in the base case to 2.6 percent of GDP, and the debt-to-GDP ratio falls steadily throughout the projection period, instead of holding stable for a decade before beginning to fall, as in the base case.

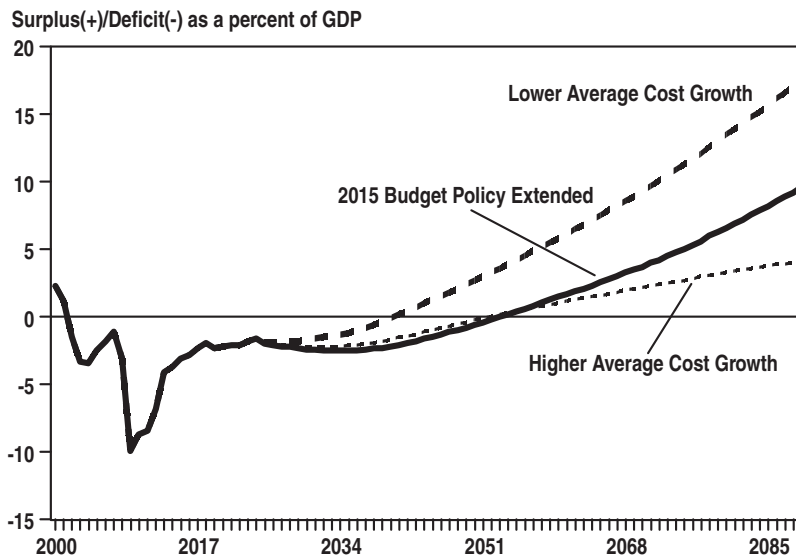
Health Spending.—The base projections for Medicare and Medicaid over the next 75 years assume an extension of current law and the policies in the 2015 Budget. The health cost alternatives illustrated in Chart 3–3 assume that medical costs rise more rapidly or more slowly than in the base case. The first alternative assumes that costs per beneficiary rise at one percentage point per year above GDP per capita in the entire health sector, while the second alternative assumes zero growth above GDP per capita in the health sector. Table 3–2 shows the effect of these alternatives on the 75-year present value fiscal surplus, which falls from 1.8 percent of 75-year present value GDP in the base case to 1.2 percent of GDP in the high health cost growth scenario and rises to 3.3 percent of GDP in the low health cost growth scenario.

Discretionary Spending.— The current base projection for discretionary spending assumes that after 2024, discretionary spending grows with inflation and population (see Chart 3–4). An alternative assumption would be to allow discretionary spending to keep pace with the economy and grow with GDP. Yet another possible assumption is to only allow discretionary spending to grow

⁶ The *Analytical Perspectives* volume of the *Fiscal Year 2014 Budget* included an analysis of the effects of alternative fertility, mortality, and immigration assumptions. The underlying assumptions were drawn from the high-cost and low cost-alternatives presented in the 2012 So-

cial Security Trustees' report. The results are summarized on p. 56 of the *Analytical Perspectives* volume (www.whitehouse.gov/sites/default/files/omb/budget/fy2014/assets/econ_analyses.pdf)

Chart 3-3. Alternative Health Care Costs



with inflation. As shown in Table 3–2, the 75-year fiscal surplus falls from 1.8 percent of 75-year present value GDP in the base case to 0.6 percent of GDP in the growth with GDP scenario, and rises to 2.1 percent of GDP in the growth with inflation scenario.

Alternative Revenue Projections.—In the base projection, tax receipts rise gradually relative to GDP as real incomes rise. Chart 3–5 shows alternative receipts assumptions. Assuming that Congress will act to cut taxes to avoid the revenue increases associated with rising incomes would bring about higher deficits and publicly held debt throughout the 75-year horizon. The 75-year fiscal surplus falls from 1.8 percent of 75-year present value GDP in the base case to 0.6 percent of GDP in the alternative scenario.

Productivity.—The rate of future productivity growth has a major effect on the long-run budget outlook (see

Chart 3–6). It is also highly uncertain. Over the next few decades, an increase in productivity growth would reduce projected budget deficits. Higher productivity growth adds directly to the growth of the major tax bases, while it has a smaller immediate effect on outlay growth. For much of the last century, output per hour in nonfarm business grew at an average rate of around 2.2 percent per year, despite long periods of sustained output growth at notably higher and lower rates than the long term average.

The base projections assume that real GDP per hour worked will grow at an average annual rate of 1.7 percent per year. The alternative scenarios highlight the effect of raising and lowering the projected productivity growth rate by 1/4 percentage point. The 75-year fiscal surplus rises from 1.8 percent of 75-year present value GDP in the base case to 3.7 percent of GDP in the faster productivity

Chart 3-4. Alternative Discretionary Projections

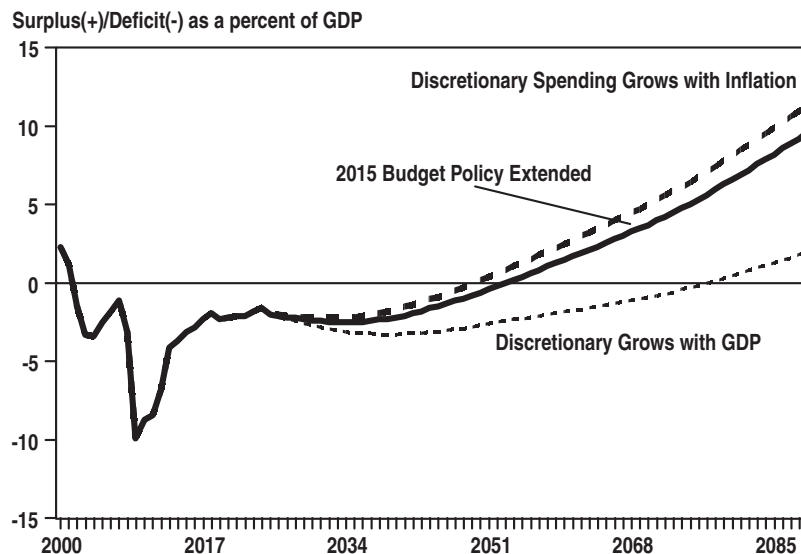
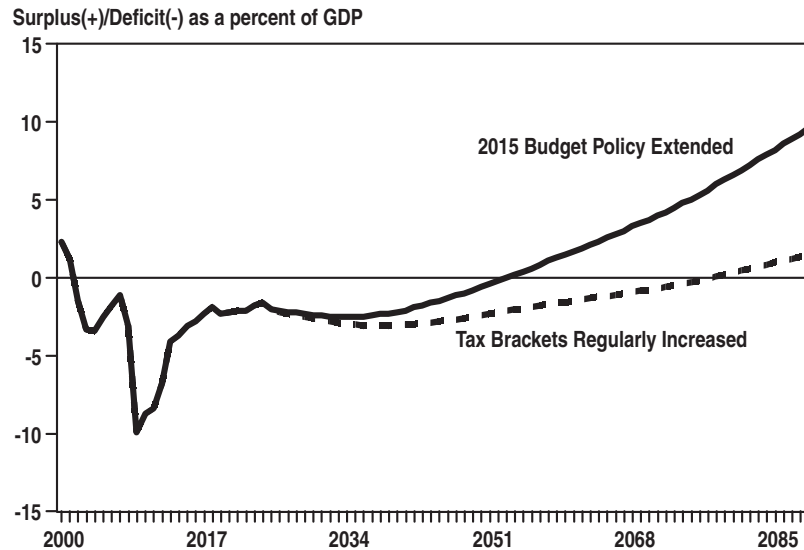


Chart 3-5. Alternative Revenue Projections

scenario, but falls to a fiscal gap of 0.2 percent of GDP in the slower productivity scenario.

The long-run budget outlook is highly uncertain (see Chart 3-7). With pessimistic assumptions, the fiscal picture can quickly deteriorate back into deficits and rising debt. For example, combining the assumptions of lower productivity growth and higher-than-expected health care cost growth leads to a potential fiscal gap of 0.7 percent of GDP. Conversely, more optimistic assumptions imply an even earlier return to surpluses and declining debt. Combining the alternatives of higher productivity and lower-than-expected health care cost growth leads to a potential fiscal surplus of 4.6 percent of GDP. These projections highlight the need for policy awareness and potential action to address the main drivers of future budgetary costs.

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 revenue. Though the unified budget is in long-run balance under these projections, dedicated revenues to the trust funds fall short of the levels necessary to finance benefit costs.

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 speci-

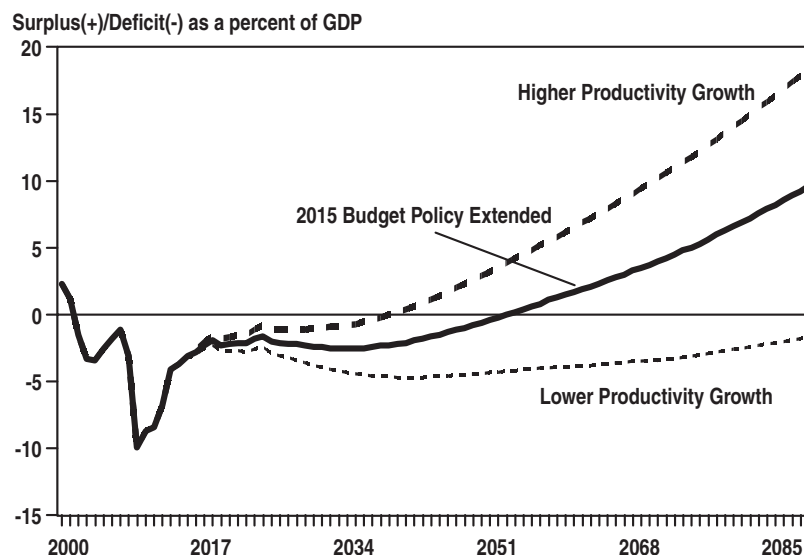
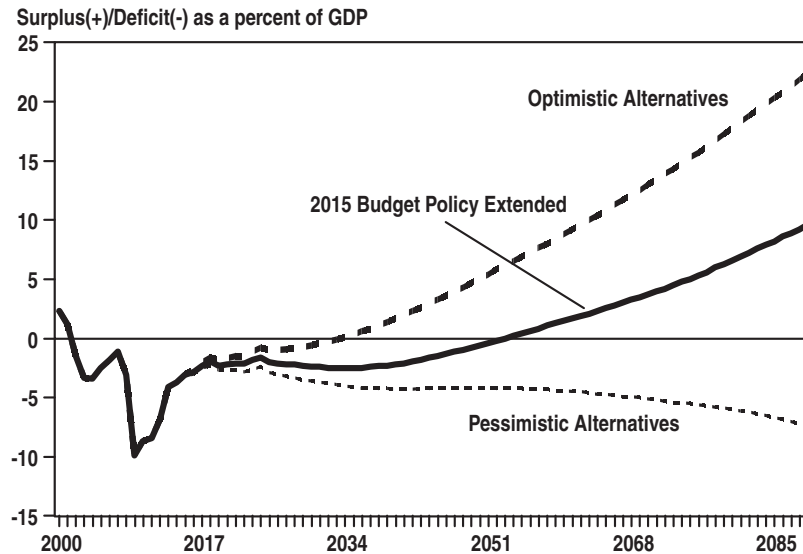
Chart 3-6. Alternative Productivity Assumptions

Chart 3-7. Combined Alternatives



fied time period. The estimates cover periods ranging in length from 25 to 75 years. These balance calculations show what it would take to achieve a positive trust fund balance at the end of a specified period of time, not what it would take to maintain a positive balance indefinitely. To maintain a positive balance forever requires a larger adjustment than is needed to maintain a positive balance over 75 years when the annual balance in the program is negative at the end of the 75-year projection period, as it is expected to be for Social Security and Medicare without future reforms.

Table 3–3 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. Data from the 2011 and the 2012 reports are shown along with the latest data from the 2013 reports. Even following the passage of the ACA in 2010, there is a continued imbalance in the long-run projections of the HI program due to demographic trends and continued high per-person costs. In the 2011 Trustees’ report, Medicare HI trust fund costs as a percentage of Medicare covered payroll were projected to rise from 3.7 percent to 5.0 percent between 2012 and 2080 and the HI trust fund imbalance was projected to be -0.7 percent in 2080. In the 2012 report, costs rose from 3.7 percent of Medicare taxable payroll in 2012 to 6.3 percent in 2080 and the imbalance in the HI trust fund in 2080 was -2.0 percent. On average, the HI cost rate declined slightly in the 2013 report compared with 2012. In the 2013 report, HI costs rise from 3.7 percent of Medicare taxable payroll in 2010 to 5.9 percent in 2080 and the imbalance in the HI trust fund in 2080 is -1.7 percent.

Under the Medicare Modernization Act (MMA) of 2003, the Medicare Trustees must issue a “warning” when in two consecutive Trustees’ reports they 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. Such a warning was included in the 2013

Trustees’ Report. The MMA requires that the President submit legislation, within 15 days of submitting the Budget, which will reduce general revenue funding to 45 percent of overall Medicare outlays or lower in the immediate seven-fiscal-year window. In accordance with the Recommendations Clause of the Constitution and as the Executive Branch has noted in prior years, the Executive Branch considers this requirement to be advisory and not binding. However, the proposals in this Budget would further strengthen Medicare’s finances and extend its solvency.

As a result of reforms legislated in 1983, Social Security had been running a cash surplus with taxes exceeding costs up until 2009. This surplus in the Social Security trust fund helped to hold down the unified budget deficit. The cash surplus ended in 2009, when the trust fund began using a portion of its interest earnings to cover benefit payments. The 2013 Social Security Trustees’ report projects that the trust fund will not return to cash surplus without further reforms. Even so, the program will continue to experience an overall surplus for some years because of the interest earnings. Eventually, however, 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 from 13.8 percent of Social Security covered payroll in 2012 to 14.3 percent of payroll in 2020, 16.5 percent of payroll in 2030 and 17.8 percent of payroll in 2080. Revenues excluding interest are projected to rise only slightly from 12.8 percent of payroll today to 13.2 percent in 2080. Thus the annual balance is projected to decline from -1.0 percent of payroll in 2012 to -1.3 percent of payroll in 2020, -3.4 percent of payroll in 2030, and -4.5 percent of payroll in 2080. On a 75-year basis, the actuarial deficit is projected to be -2.7 percent of payroll. In the process, the Social Security trust fund, which was built up since 1983, would be drawn down and eventually be exhausted in 2033. These projections assume that benefits

Table 3-3. INTERMEDIATE ACTUARIAL PROJECTIONS FOR OASDI AND HI

	2012	2020	2030	2050	2080
	Percent of Payroll				
Medicare Hospital Insurance (HI)					
Income Rate					
2011 Trustees' Report	3.2	3.5	3.6	3.9	4.3
2012 Trustees' Report	3.2	3.5	3.7	3.9	4.3
2013 Trustees' Report	3.2	3.4	3.6	3.9	4.2
Cost Rate					
2011 Trustees' Report	3.7	3.6	4.4	5.1	5.0
2012 Trustees' Report	3.7	3.6	4.7	5.8	6.3
2013 Trustees' Report	3.7	3.5	4.5	5.4	5.9
Annual Balance					
2011 Trustees' Report	-0.6	-0.2	-0.8	-1.2	-0.7
2012 Trustees' Report	-0.5	-0.2	-1.0	-1.9	-2.0
2013 Trustees' Report	-0.5	-0.1	-0.8	-1.6	-1.7
Projection Interval:			25 years	50 years	75 years
Actuarial Balance: 2011 Trustees' Report			-0.5	-0.8	-0.8
Actuarial Balance: 2012 Trustees' Report			-0.7	-1.2	-1.4
Actuarial Balance: 2013 Trustees' Report			-0.6	-1.0	-1.1
	Percent of Payroll				
Old Age Survivors and Disability Insurance (OASDI)					
Income Rate					
2011 Trustees' Report	12.9	13.1	13.2	13.2	13.3
2012 Trustees' Report	12.9	13.1	13.3	13.3	13.3
2013 Trustees' Report	12.8	13.0	13.1	13.2	13.2
Cost Rate					
2011 Trustees' Report	13.2	14.2	16.7	16.7	17.4
2012 Trustees' Report	13.8	14.4	17.0	17.1	17.6
2013 Trustees' Report	13.8	14.3	16.5	16.8	17.8
Annual Balance					
2011 Trustees' Report	-0.4	-1.1	-3.5	-3.4	-4.1
2012 Trustees' Report	-0.9	-1.3	-3.8	-3.8	-4.3
2013 Trustees' Report	-1.0	-1.3	-3.4	-3.6	-4.5
Projection Interval:			25 years	50 years	75 years
Actuarial Balance: 2011 Trustees' Report			-0.6	-1.8	-2.2
Actuarial Balance: 2012 Trustees' Report			-1.2	-2.3	-2.7
Actuarial Balance: 2013 Trustees' Report			-1.3	-2.3	-2.7

would continue to be paid in full despite the projected exhaustion of the trust fund to show the long-run implications of current benefit formulas. Under current law, not all scheduled benefits would be paid after the trust funds are exhausted. However, benefits could still be partially

funded from current revenues. The 2013 Trustees' report presents projections on this point. Beginning in 2033, 77 percent of projected Social Security scheduled benefits would be funded. This percentage would eventually decline to 72 percent by 2087.

TECHNICAL NOTE: SOURCES OF DATA AND METHODS OF ESTIMATING

The long-run budget projections are based on 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 2014-2024, the assumptions are drawn from the Administration's economic projections used for the

2015 Budget. These budget assumptions reflect the President's policy proposals. The economic assumptions are extended beyond this interval by holding inflation, interest rates, and the unemployment rate constant at the levels assumed in the final year of the budget forecast. Population growth and labor force growth are extended using the intermediate assumptions from the 2013 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 rate of growth in the Budget's economic assumptions—1.7 percent per year.

CPI inflation holds stable at 2.3 percent per year, the unemployment rate is constant at 5.4 percent, the yield on 10-year Treasury notes is steady at 5.1 percent, and the 91-day Treasury bill rate is 3.7 percent. Consistent with the demographic assumptions in the Trustees' reports, U.S. population growth slows from around 1 percent per year to about two-thirds that rate by 2030, and slower rates of growth beyond that point. By the end of the projection period total population growth is nearly as low as 0.4 percent per year. Real GDP growth is projected to be less than its historical average of around 3.4 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 2.1 percent and 2.3 percent per year for the period following the end of the 10-year budget window.

The economic and demographic projections described above are set by assumption and do not automatically

change in response to changes in the budget outlook. This is unrealistic, but it simplifies comparisons of alternative policies.

Budget Projections.—For the period through 2024, receipts follow the 2015 Budget's policy projections. After 2024, total tax receipts rise gradually relative to GDP as real incomes also rise. Discretionary spending follows the path in the Budget over the next 10 years and grows at the rate of growth in inflation plus population afterwards. Other spending also aligns with the Budget through the budget horizon. 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 health care cost growth from the 2013 Medicare Trustees' report, as adjusted to account for the Budget's IPAB proposal, and the general inflation assumptions described above. Medicaid outlays are based on the economic and demographic projections in the model. 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.