



FISCAL YEAR 2013

ANALYTICAL PERSPECTIVES

BUDGET OF THE U.S. GOVERNMENT

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THE BUDGET DOCUMENTS

Budget of the United States Government, Fiscal Year 2013 contains the Budget Message of the President, information on the President's priorities, budget overviews organized by agency, and summary tables.

Analytical Perspectives, Budget of the United States Government, Fiscal Year 2013 contains analyses that are designed to highlight specified subject areas or provide other significant presentations of budget data that place the budget in perspective. This volume includes economic and accounting analyses; information on Federal receipts and collections; analyses of Federal spending; information on Federal borrowing and debt; baseline or current services estimates; and other technical presentations.

The *Analytical Perspectives* volume also contains supplemental material with several detailed tables, including tables showing the budget by agency and account and by function, subfunction, and program, that is available on the Internet and as a CD-ROM in the printed document.

Historical Tables, Budget of the United States Government, Fiscal Year 2013 provides data on budget receipts, outlays, surpluses or deficits, Federal debt, and Federal employment over an extended time period, generally from 1940 or earlier to 2013 or 2017.

To the extent feasible, the data have been adjusted to provide consistency with the 2013 Budget and to provide comparability over time.

Appendix, Budget of the United States Government, Fiscal Year 2013 contains detailed information on the various appropriations and funds that constitute the budget and is designed primarily for the use of the Appropriations Committees. The *Appendix* contains more detailed financial information on individual pro-

grams and appropriation accounts than any of the other budget documents. It includes for each agency: the proposed text of appropriations language; budget schedules for each account; legislative proposals; explanations of the work to be performed and the funds needed; and proposed general provisions applicable to the appropriations of entire agencies or group of agencies. Information is also provided on certain activities whose transactions are not part of the budget totals.

AUTOMATED SOURCES OF BUDGET INFORMATION

The information contained in these documents is available in electronic format from the following sources:

Internet. All budget documents, including documents that are released at a future date, spreadsheets of many of the budget tables, and a public use budget database are available for downloading in several formats from the Internet at www.budget.gov/budget. Links to documents and materials from budgets of prior years are also provided.

Budget CD-ROM. The CD-ROM contains all of the budget documents in fully indexed PDF format along with the software required for viewing the documents. The CD-ROM has many of the budget tables in spreadsheet format and also contains the materials that are included on the separate *Analytical Perspectives* CD-ROM.

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GENERAL NOTES

1. All years referenced for budget data are fiscal years unless otherwise noted. All years referenced for economic data are calendar years unless otherwise noted.
2. Detail in this document may not add to the totals due to rounding.
3. Under the President's Government consolidation proposal announced on January 13, 2012, a number of agencies and programs would be consolidated into a new department focused on supporting the growth of American business and the resulting job creation, with the goal of improving services and reducing costs. The specific proposal to create the new department will be submitted to the Congress once the consolidation authority requested by the President is enacted. The Administration's budget proposal, including the request in this Budget and agencies' supporting materials, is presented in terms of the existing agency structures, and appropriate adjustments will be submitted once consolidation authority is enacted.

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5. LONG TERM BUDGET OUTLOOK

The horizon for the detailed estimates of receipts and outlays in the President's Budget is 10 years. Accordingly, the account-level estimates in the 2013 Budget extend to 2022. This 10-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.

Decisions made today can have important repercussions beyond the 10-year horizon. It is important to anticipate future 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 2013 Budget for 75 years through 2087. Because of the uncertainties involved in making long-run projections, results are presented for a base case and for several alternative scenarios.

The passage of the Affordable Care Act (ACA) in 2010 had a profound effect on these projections. The cost-reduction mechanisms in the ACA significantly reduce projected budget deficits in the long run. In 2011, following weeks of negotiation with the Administration, Congress passed the Budget Control Act of 2011 (BCA). The BCA reduces long-run budget deficits by constraining spending over the next 10 years, and the 2013 Budget includes other initiatives that would help control future deficits if enacted. Nonetheless, the Administration recognizes that there is considerable uncertainty in its long-term projections and that future challenges will require policy responses that have yet to be formulated. The projections in this chapter reflect the fact that, until these reforms are enacted, simply extending current laws and policies leaves the country with a large and growing publicly held debt. Reforms are needed to make sure that overall budgetary resources are sufficient to support future spending and that programs like Medicare Part A and Social Security, which are expected to be financed from dedicated revenue sources, remain self-sustaining. The Administration intends to work with the Congress to develop additional policies that will assure fiscal sustainability in the future.

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 programs like unemployment insurance had also risen sharply. The measures taken by the Administration to revive economic growth will also help

to increase revenues, and, over the next ten years, the revenue shortfall is projected to be made up. By 2022, revenues as a share of GDP are projected to be above their historical average over the last 40 years. Meanwhile, measures like the ACA and the BCA along with the proposals in this Budget will constrain future spending and help narrow the deficit. By the end of the period, the primary budget is balanced and the debt-to-GDP ratio will have been stabilized. Beyond the 10-year horizon, however, demographic pressures and continued high costs for health care are likely to begin gradually pushing up the deficit and the ratio of debt to GDP.

The key drivers of the long-range deficit are the Government's major health and retirement programs: Medicare, Medicaid and Social Security. Revenues rise somewhat relative to GDP, but not enough to keep pace with the increase in health and retirement program spending.

- Medicare finances health insurance for most of the Nation's seniors and many individuals with disabilities. Medicare's growth has generally exceeded that of other Federal spending for decades, tracking the rapid growth in overall health care costs. The ACA will curtail this cost growth, but Medicare spending is still projected to reach higher levels relative to the economy and the budget than those that prevail today.
- Medicaid provides medical assistance, including acute and long-term care, to low-income children and families, seniors, and people with disabilities. Medicaid's growth has also generally exceeded that of other Federal spending, and like Medicare it has generally tracked the growth in overall health costs. Medicaid assistance will expand further beginning in 2014 because of broadened coverage provided by the ACA. Medicaid's finances are also expected to benefit from the ACA's reforms.
- Social Security provides retirement benefits, disability benefits, and survivors' insurance for the Nation's workers. Outlays for Social Security benefits will begin to exceed the program's dedicated income in a little more than a decade putting pressure on the overall budget as trust fund balances are drawn down.

Long-range projections for Social Security and Medicare have been prepared for decades, and the actuaries at the Centers for Medicare and Medicaid Services have indicated that they intend to begin producing such projections for Medicaid. This is useful information, but it does not indicate the Government's overall budgetary po-

sition, which is the reason the projections in this chapter offer a useful complement to the long-run projections for the individual programs.

Future budget outcomes depend on a host of unknowns—changing economic conditions, unforeseen international developments, unexpected demographic shifts, the unpredictable forces of technological advance, and evolving political preferences to name a few. These uncertainties make even short-run budget forecasting quite difficult, and the uncertainties increase the further into the future projections are extended. While uncertainty makes forecast accuracy difficult to achieve, it does not detract from the importance of long-run budget projections, because future problems are often best addressed in the present. 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 of key economic and demographic assumptions.

The Long-Run Fiscal Challenge

The 2013 Budget includes \$3 trillion in net deficit reduction over the next 10 years. Combined with the approximately \$1 trillion in savings from the provisions in Title I of the BCA, this would generate more than \$4 trillion in deficit reduction over the next decade. These savings would bring the Nation to the point where current spending is no longer adding to debt and where debt is no longer increasing as a share of the economy—an important milestone on the way to restoring fiscal discipline and moving the budget toward balance. By the end of the 10-year budget window, the policies in this Budget stabilize the deficit at less than 3 percent of GDP. Beyond 2022, however, the fiscal position gradually deteriorates mainly because of the aging of the population and the high continuing cost of the Government's health programs. By 2030, the deficit is projected to be 4.5 percent of GDP, and by 2040 it is nearly 6 percent. The deficit continues to rise for the next 75 years, and the publicly-held debt is also projected to rise persistently relative to GDP (see Chart 5-1).

Health care costs have risen faster than inflation for decades. This rising cost trend has contributed to steady increases in the amounts spent on Medicare and Medicaid, while also making it more difficult for people to afford private health insurance. The ACA tackles both problems by extending health insurance coverage to millions of Americans who currently lack insurance, while making reforms that will slow future growth in medical costs. When the law is fully implemented, Medicare spending per beneficiary would rise at rates substantially below those at which spending has grown for four decades. Even with these changes, however, health care costs are likely to continue to rise faster than inflation as the population ages, posing a danger to long-run budget stability.

Population aging also poses a serious long-run budgetary challenge. Because of lower expected fertility and improved longevity, the Social Security actuaries project that under current law in which the normal retirement age rises to 67, the ratio of workers to Social Security beneficiaries will fall from around 2.9 currently to a little over 2 by the time most of the baby boomers have retired. From that point forward, the ratio of workers to beneficiaries is expected to continue to decline slowly. With fewer workers to pay the taxes needed to support the retired population, budgetary pressures will steadily mount and without reforms, trust fund exhaustion is projected by the Social Security Trustees to occur in 2036. The country also faces the challenge of reforming the tax code to make it fairer and simpler and to provide sufficient revenue to meet long-run commitments. Resolving the long-run fiscal challenge will require a comprehensive approach, one that restrains spending growth but also addresses the sufficiency of the tax code. The 2013 Budget includes several proposed changes to the tax code that would close loopholes and eliminate tax breaks for special interests. It also calls on Congress to undertake comprehensive tax reform to both lower tax rates and generate new revenues.

Long-Run Budget Projections.—In 2011, the three major entitlement programs — Medicare, Medicaid, and Social Security — accounted for 44 percent of non-interest

Chart 5-1. Publicly Held Debt Under 2013 Budget Policy Extended

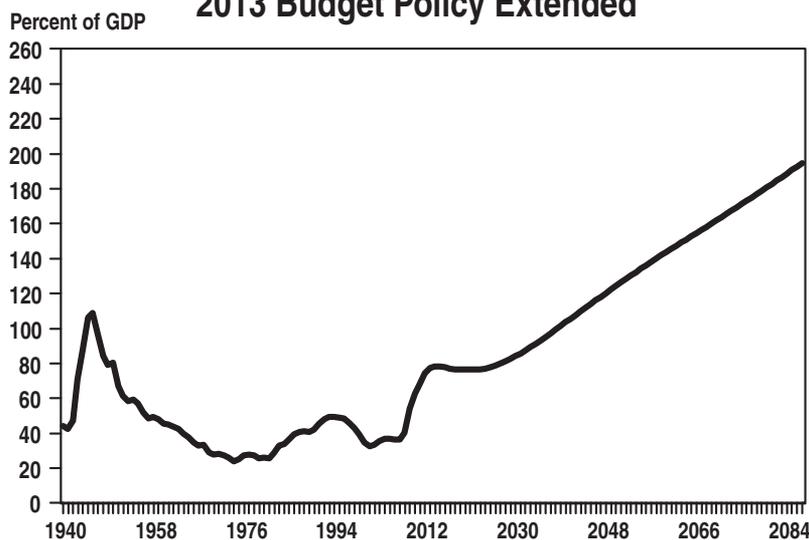


Table 5–1. LONG-RUN BUDGET PROJECTIONS
(Receipts, Outlays, Surplus or Deficit, and Debt as a Percent of GDP)

	1980	1990	2000	2010	2020	2030	2040	2050	2060	2070	2080	2085
Receipts	19.0	18.0	20.6	15.1	19.7	20.0	20.2	20.3	20.5	20.7	20.8	20.9
Outlays:												
Discretionary	10.1	8.7	6.3	9.1	5.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Mandatory:												
Social Security	4.3	4.3	4.1	4.9	5.2	5.8	5.8	5.7	5.6	5.7	5.8	5.8
Medicare	1.1	1.7	2.0	3.1	3.3	4.3	4.8	5.0	5.0	5.1	5.1	5.1
Medicaid	0.5	0.7	1.2	1.9	2.2	2.5	2.8	3.0	2.9	2.9	2.9	2.8
Other	3.7	3.2	2.4	3.7	3.4	3.1	2.9	2.8	2.7	2.6	2.6	2.6
Subtotal, mandatory	9.6	9.9	9.7	13.6	14.0	15.8	16.4	16.4	16.3	16.3	16.3	16.3
Net interest	1.9	3.2	2.3	1.4	3.2	3.8	4.6	5.6	6.5	7.3	8.1	8.6
Total outlays	21.7	21.9	18.2	24.1	22.5	24.5	26.0	27.0	27.7	28.6	29.4	29.9
Surplus or deficit (–)	–2.7	–3.9	2.4	–9.0	–2.8	–4.5	–5.8	–6.6	–7.2	–7.9	–8.6	–9.0
Primary surplus/deficit(–)	–0.8	–0.6	4.7	–7.6	0.4	–0.7	–1.2	–1.1	–0.7	–0.6	–0.5	–0.4
Federal debt held by the public, end of period	26.1	42.1	34.7	62.8	76.5	84.2	103.5	124.4	143.7	161.8	180.8	190.6

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.

Federal spending, up from 30 percent in 1980. By 2035, when the surviving baby boomers will all be 70 or older, these three programs could account for more than 60 percent of non-interest Federal spending. Through the end of the projection period, in 2087, this figure would continue to rise gradually. In other words without further reforms, more than three-fifths of the budget, aside from interest, would go to these three programs alone. That would severely reduce the flexibility of the budget, and the Government's ability to respond to new challenges.

Because of these pressures, further cost-reducing measures or additional revenues are needed to stabilize the budget outlook in the long run. The budget projections shown in Table 5–1 illustrate that point. The policies in the 2013 Budget, would stabilize the budget outlook over the next 10 years by generating \$3 trillion in additional deficit reduction. However, after stabilizing the debt-to-GDP ratio over that time period, the deficit and the debt-ratio begin to rise again in the period after 2022, with the debt-to-GDP ratio eventually far exceeding its previous peak level reached at the end of World War II. The policies in the 2013 Budget will allow more time to develop long-term policies to address the persistently-rising debt.

Medicare and Medicaid.— In the long-run projections in this chapter, different assumptions about the growth rate of health care costs are made. In the base case, a continuation of current policy assumes 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 2011), which is consistent with how these long-term budget projections have generally been made in the past. The Trustees' projections imply that average long-range annual growth in Medicare spending per enrollee is 0.2 percentage points per year faster than the projected growth rate in GDP per capita. 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.

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. There is also 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.¹ Finally, the ACA established an independent payment advisory board that will be empowered to propose changes in Medicare should Medicare costs exceed the growth rate specified in law. The proposed changes in Medicare would take effect automatically, unless overridden by the Congress. 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.²

An alternative discussed below assumes that medical costs rise more rapidly than in the base case. This could happen, for example, if future Congresses and Administrations weaken the budgetary discipline embodied in current law. The alternative assumes that costs per beneficiary rise at two percentage points per year above GDP per capita which would continue the historical experience of the last 50 years.

¹ 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.

² The projections assume that growth in Medicaid spending per enrollee and private health spending per capita exceeds growth in GDP per capita by 0.6 percentage points.

Revenues.—Projected revenues in these long-run budget projections start with the estimated receipts under the Administration’s proposals in the 2013 Budget. There is some built-in momentum in the tax code that tends to push up average tax rates over time when real incomes are rising, as assumed in these projections. For example, the tax code is indexed for inflation, but not for increases in real income, so there is a tendency for individual income taxes to increase relative to incomes when real taxable incomes are rising, everything else equal. Historically, Congress has acted to forestall this tendency by periodically lowering tax rates. Beyond the 10-year budget window, the projections in this chapter assume that individual income tax rates will not rise automatically with real wage growth. The projections also assume that the Alternative Minimum Tax (AMT) will not be allowed to expand as it would under current law. In recent years, Congress and the Administration have always acted to curtail the spread of the AMT preventing the increase in revenues from that source implied by current law. While these assumptions tend to limit tax revenue, other assumptions work in the opposite direction. For example, the projections assume that the new revenue provisions in the ACA go into effect including the excise tax on high-premium health plans. On balance, the assumptions produce a gradual increase in the overall share of revenues relative to GDP rising to nearly 21 percent by the end of the long-run projection period. Despite the increase, projected revenues are insufficient to meet the Federal Government’s projected future commitments as shown by the growing deficits in Table 5-1.

Discretionary Outlays.—Because discretionary spending is determined annually through the legislative process, there is no straightforward assumption for projecting its future path. The budget displays a path for discretionary spending over the next 10 years; beyond that time frame, however, there are several different plausible assumptions for the future path. One is to assume that discretionary spending will be held constant in inflation-adjusted terms, which would allow discretionary programs to increase with prices, but would not allow the programs to expand with population or real growth in the economy. Extending this assumption over many decades is not realistic, when the population and economy are projected to grow, as assumed in these projections. Therefore, the base projection assumes that discretionary spending keeps pace with the growth in GDP in the long run. The chapter also uses alternative assumptions for discretionary spending to show other possible paths. It is important to note that these paths are merely illustrative; they are not intended to represent the policy preferences of this Administration or future Administrations.

Table 5-1 shows how the budget would evolve without further changes in policy under the base assumptions described above. The key assumptions are the full implementation of the ACA with its various provisions to control costs and alter incentives for medical practice, the BCA which limits discretionary spending over the next ten years, and the adoption of the proposals in this Budget to control the deficit and reform taxes. Under these as-

sumptions, the future growth of Medicare and Medicaid is projected to slow sharply relative to GDP, and future discretionary spending is much lower relative to GDP than has been true in recent decades. Social Security benefits rise relative to the economy over the next 20 years, but increase more slowly after that as the age composition of the population begins to stabilize. Other mandatory programs generally decline relative to the size of the economy. These include Federal pension benefits for Government workers. The shift in the 1980s from the Civil Service Retirement System (CSRS) to 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. The defined benefit pension plan in FERS is much smaller than the traditional Federal pension benefit under CSRS. On the revenue side, once tax revenues recover from the economic downturn, revenues gradually grow but by less than future spending. With total outlays increasing more rapidly than taxes, the deficit rises, and publicly held debt exceeds historical levels.

The ACA addresses the single most important long-run challenge to the Nation’s fiscal future, which is rising health care costs. Even with this fundamental change, however, an aging population and a continued high level of health costs will pose serious long-term budget problems. Under current policies, Medicare, Medicaid, and Social Security are projected to absorb a much larger share of Federal resources than in the past, limiting what the Government can do in other areas. The ratio of debt to GDP, which is stabilized within the 10-year budget window, is projected to resume its growth in the long run without further policy changes.

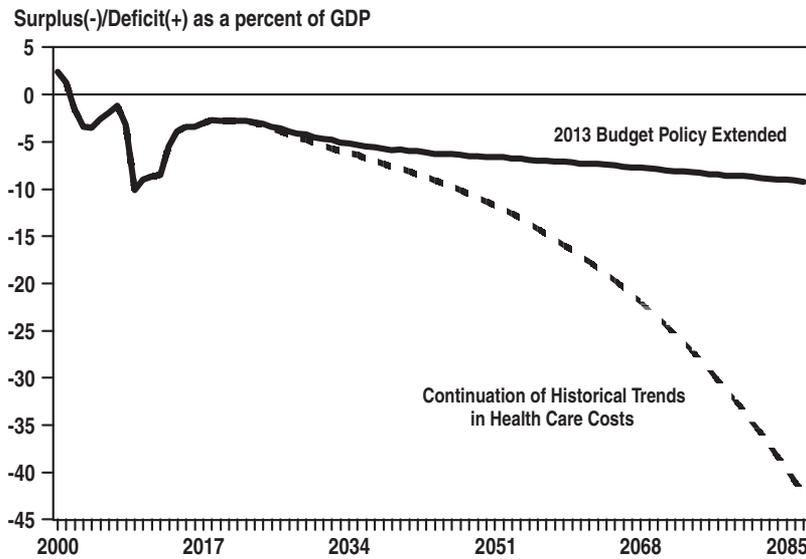
Alternative Policy, Economic, and Technical Assumptions

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. For most plausible alternative projections of long-run trends, the deficit and debt rise even more than in the base projections discussed above.

Health Spending.—The base projections for Medicare and Medicaid over the next 75 years assume an extension of current law. Chart 5-2 shows budget outcomes under these base assumptions and an alternative scenario. The alternative assumes spending per beneficiary grows 2 percentage points faster than GDP per capita, similar to the historical growth rate of medical costs in the United States since 1960.

Discretionary Spending.—The current base projection for discretionary spending assumes that after 2022, discretionary spending keeps pace with the growth in GDP (see Chart 5-3). An alternative assumption would be to allow discretionary spending to increase for inflation and population growth only. In this case, discretionary spending would remain constant in inflation-adjusted per capita terms. Yet another possible assumption is to al-

Chart 5-2. Alternative Health Care Costs



low nondefense discretionary spending to grow with GDP while defense spending is adjusted only for inflation plus one percent real growth per year. This latter combination is somewhat closer to historical experience over the last 60 years.

Alternative Revenue Projections.—In the base projection, tax receipts rise gradually relative to GDP. Chart 5-4 shows alternative receipts assumptions. Allowing receipts to rise by an additional 2 percentage points of GDP relative to the base projections would stabilize the long-run budget deficit. Reducing taxes by 2 percentage points of GDP relative to the base projections would bring the projected rise in the deficit and the publicly-held debt forward in time.

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

Chart 5-5). 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 even assuming that discretionary spending rises with GDP. For much of the last century, output per hour in nonfarm business grew at an average rate of around 2.2 percent per year. Growth was not always steady. In the 25 years following 1948, labor productivity in the nonfarm business sector of the economy grew at an average rate of 2.7 percent per year, but this was followed by a period of much slower growth. From 1973 to 1995, output per hour in non-farm business grew at an average annual rate of just 1.5 percent per year. In the latter half of the 1990s, however, the rate of productivity growth increased again

Chart 5-3. Alternative Discretionary Projections

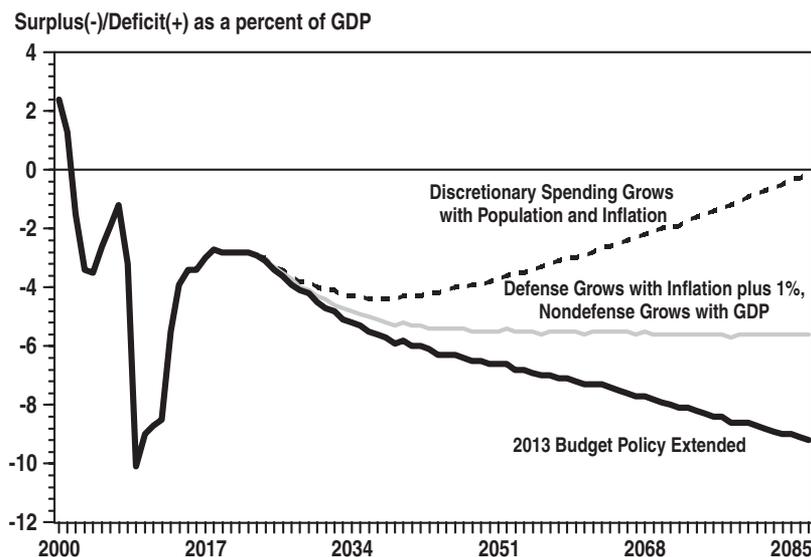
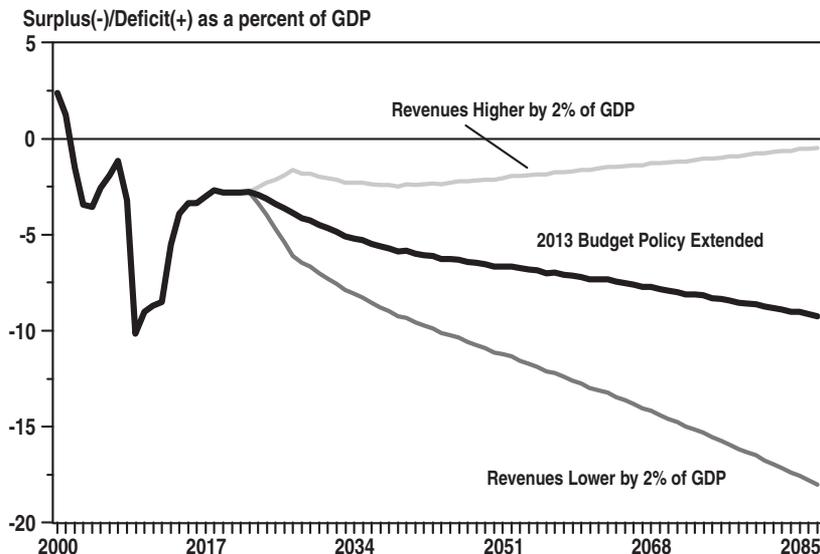


Chart 5-4. Alternative Revenue Projections



and it has remained higher albeit with some fluctuations since then. Indeed, the average growth rate of productivity in nonfarm business has averaged 2.5 percent per year since the fourth quarter of 1995.

The base projections assume that output per hour in nonfarm business will increase at an average annual rate of around 2.3 percent per year, close to its long-run average and slightly below its average growth rate since 1995. This implies that real GDP per hour worked will grow at an average annual rate of 1.9 percent per year. The difference is accounted for by the fact that the sectors of the economy that are counted in GDP outside of the nonfarm business sector tend to have lower productivity growth than nonfarm business does. The alternatives highlight the effect of raising and lowering the projected productivity growth rate by 1/4 percentage point.

Population.—The key assumptions for projecting long-run demographic developments are fertility, immigration, and mortality.

- The demographic projections assume that fertility will average about 2.0 total lifetime births per woman in the future, just slightly below the replacement rate needed to maintain a constant population in the absence of immigration—2.1 births per woman (see Chart 5-6). The alternatives are those in the latest Social Security trustees' report (1.7 and 2.3 births per woman).
- The rate of immigration is assumed to average around 1 million immigrants per year in the long run (see Chart 5-7). Higher 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

Chart 5-5. Alternative Productivity Assumptions

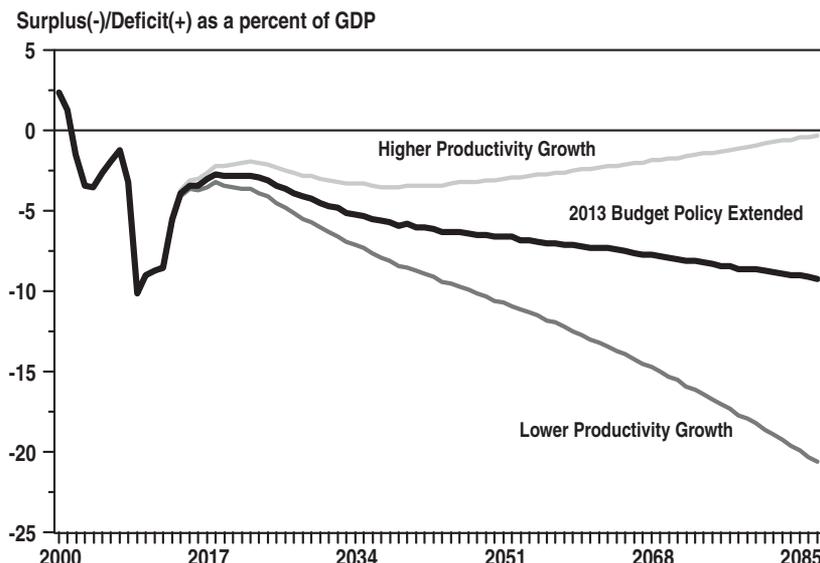
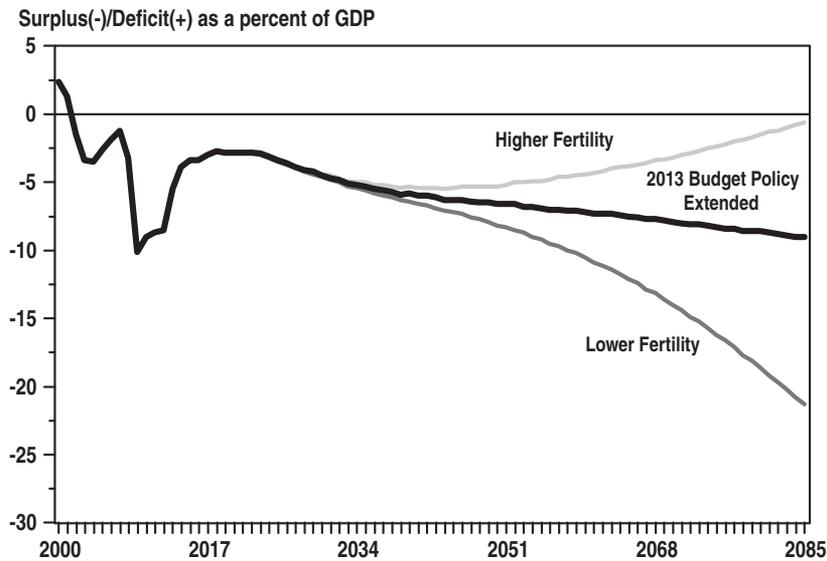


Chart 5-6. Alternative Fertility Assumptions



a much slower rate than has prevailed historically. The alternatives are taken from the Social Security Trustees' Report (1.3 million total immigrants per year in the high alternative and 0.8 million in the low alternative).

- Mortality is projected to decline as people live longer in the future (see Chart 5-8). These assumptions parallel those in the latest Social Security Trustees' Report. The average life expectancy at birth for women is projected to rise from 80.5 years in 2010 to 86.7 years in 2085, and the average for men is expected to increase from 75.8 years in 2010 to 83.3 years in 2085. A technical panel advising the Social Security trustees has reported that the improvement in longevity might be even greater than assumed here. The variations show the high and low alternatives from the latest Trustees' report (average female and

male life expectancy reaching 83.2 and 79.4 in the low cost alternative and 90.3 and 87.6 in the high cost alternative).

The long-run budget outlook is highly uncertain. With pessimistic assumptions, the fiscal picture deteriorates much more than in the base projection. More optimistic assumptions imply a smaller rise in the deficit and the debt. But despite the uncertainty, these projections show under a wide range of forecasting assumptions that overall budgetary resources will be strained in future decades. These projections highlight the need for policy action to address the main drivers of future budgetary costs.

The Fiscal Gap

The fiscal gap is one measure of the size of the adjustment needed to preserve fiscal sustainability in the long

Chart 5-7. Alternative Immigration Assumptions

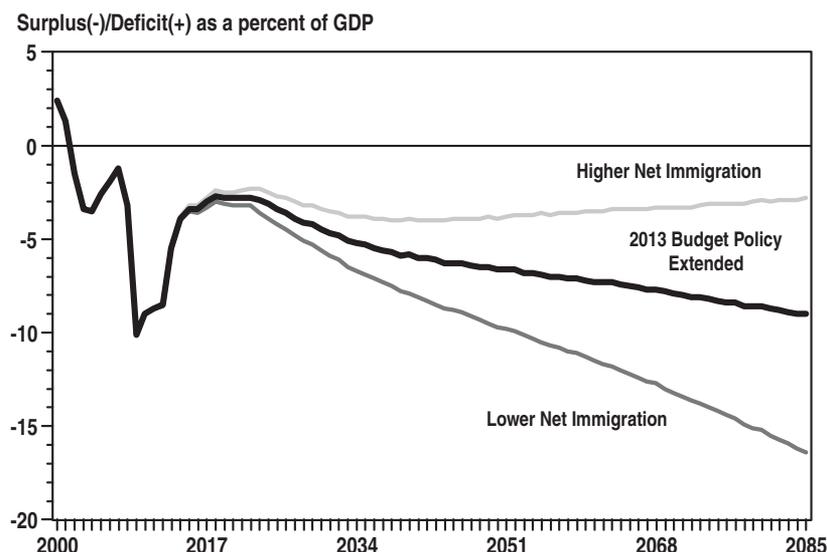
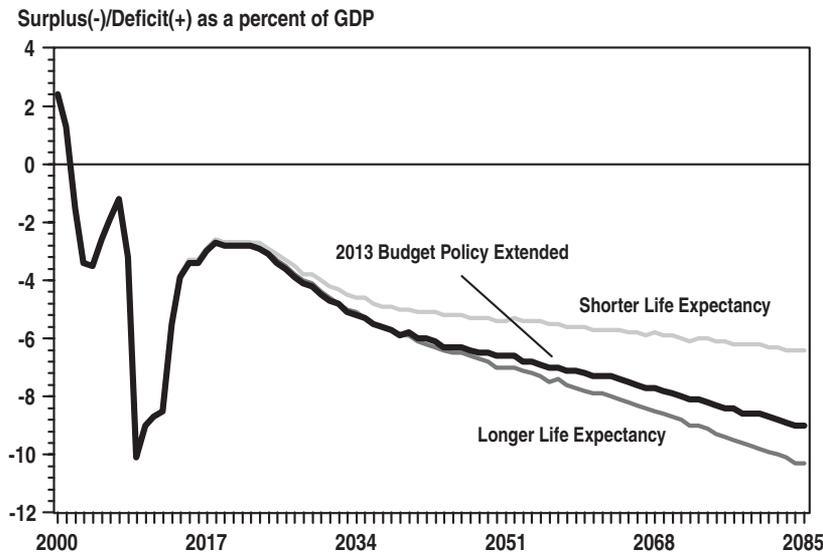


Chart 5-8. Alternative Mortality Assumptions



run.³ It is defined as the increase in taxes or reduction in non-interest expenditures required to keep the long-run ratio of Government debt-to-GDP at its current level if implemented immediately. The gap is usually measured as a percentage of GDP. The fiscal gap is calculated over a finite time period, and therefore it may understate the adjustment needed to achieve permanent sustainability.

Table 5-2 shows fiscal gap calculations for the base case calculated over a 75-year horizon and for the various

alternative scenarios described above. The fiscal gap in the base case is 1.3 percent of GDP, and it ranges in the alternative scenarios from -0.3 percent of GDP to 5.3 percent of GDP. This suggests that additional reforms are needed to be sure the budget is on a permanently sustainable course in the long run.

Actuarial Projections for Social Security and Medicare

The Trustees for the Medicare Federal Hospital Insurance (HI) and Social Security trust funds issue annual reports that include projections of income and outgo for these funds over a 75-year period. These projections are based on different methods and assumptions than the long-run budget projections presented above. Even with these differences, the message is similar: the ACA is projected to curtail the projected growth in per capita health care costs but even with this reform, the retirement of the baby-boom generation and continuing high medical costs will eventually exhaust the trust funds unless further action is taken.

The 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. 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.

³ 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.

Table 5-2. 75-YEAR FISCAL GAP UNDER ALTERNATIVE BUDGET SCENARIOS
(Percent of GDP)

Base Case	1.3
Health:	
Excess cost growth averages 2 percent.	5.3
Discretionary Outlays:	
Grow with inflation plus population	-0.1
Defense grows with inflation 1%; nondefense grows with GDP	0.8
Revenues:	
Revenues exceed base case by 2 percent of GDP	-0.3
Revenues fall short of base case by 2 percent of GDP	2.9
Productivity:	
Productivity grows by 0.5 percent per year faster than the base case	-0.2
Productivity grows by 0.5 percent per year slower than the base case	3.0
Population:	
Fertility:	
2.3 births per woman	-0.1
1.7 births per woman	2.8
Immigration:	
1.3 million immigrants per year	0.1
0.8 million immigrants per year	2.6
Mortality in 2085:	
Female life expectancy 83.2; male life expectancy 79.4	1.5
Female life expectancy 90.3; male life expectancy 87.6	1.9

Table 5-3. INTERMEDIATE ACTUARIAL PROJECTIONS FOR OASDI AND HI

	2010	2020	2030	2050	2080
	Percent of Payroll				
Medicare Hospital Insurance (HI)					
Income Rate					
2009 Trustees' Report	3.2	3.3	3.4	3.4	3.5
2010 Trustees' Report	3.2	3.4	3.6	3.9	4.3
2011 Trustees' Report	3.2	3.5	3.6	3.9	4.3
Cost Rate					
2009 Trustees' Report	3.6	4.4	6.0	8.7	11.8
2010 Trustees' Report	3.7	3.5	4.3	5.0	4.9
2011 Trustees' Report	3.8	3.6	4.4	5.1	5.0
Annual Balance					
2009 Trustees' Report	-0.4	-1.1	-2.6	-5.3	-8.3
2010 Trustees' Report	-0.5	-0.0	-0.7	-1.1	-0.7
2011 Trustees' Report	-0.6	-0.2	-0.8	-1.2	-0.7
Projection Interval:			25 years	50 years	75 years
Actuarial Balance: 2009 Trustees' Report			-1.4	-2.8	-3.9
Actuarial Balance: 2010 Trustees' Report			-0.3	-0.6	-0.7
Actuarial Balance: 2011 Trustees' Report			-0.5	-0.8	-0.8
	Percent of Payroll				
Old Age Survivors and Disability Insurance (OASDI)					
Income Rate					
2009 Trustees' Report	12.9	13.0	13.2	13.3	13.3
2010 Trustees' Report	12.3	13.1	13.2	13.2	13.3
2011 Trustees' Report	12.5	13.1	13.2	13.2	13.3
Cost Rate					
2009 Trustees' Report	12.5	14.5	16.8	16.6	17.5
2010 Trustees' Report	13.1	14.2	16.4	16.3	17.3
2011 Trustees' Report	13.4	14.2	16.7	16.7	17.4
Annual Balance					
2009 Trustees' Report	0.4	-1.5	-3.6	-3.4	-4.2
2010 Trustees' Report	-0.8	-1.1	-3.2	-3.1	-4.0
2011 Trustees' Report	-0.9	-1.1	-3.4	-3.4	-4.1
Projection Interval:			25 years	50 years	75 years
Actuarial Balance: 2009 Trustees' Report			-0.2	-1.5	-2.0
Actuarial Balance: 2010 Trustees' Report			-0.3	-1.5	-1.9
Actuarial Balance: 2011 Trustees' Report			-0.6	-1.8	-2.2

Table 5-3 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 2009 and the 2010 reports are shown along with the latest data from the 2011 reports. The large improvement in the HI Trust Fund balance between 2009 and 2010 can be seen in Table 5-3. This is the result of the passage of the ACA. Even with the ACA there is still a long-run deficit in the HI program, albeit one that is much smaller than projected in 2009 and earlier. These projections assume full implementation of the cost reductions under current law, over the entire long-run projection period. In the 2009 Trustees' report, Medicare HI trust fund costs as a percentage of Medicare covered payroll were projected to rise from 3.6 percent to 11.8 percent between 2010 and 2080

and the HI trust fund imbalance was projected to be -8.3 percent in 2080. In the 2010 report, costs rise from 3.7 percent of Medicare taxable payroll in 2010 to 4.9 percent in 2080 and the imbalance in the HI trust fund in 2080 is -0.7 percent. On average, the HI cost rate has increased slightly in the 2011 report compared with 2010, although the final value of the HI cost rate is slightly lower in the 2011 report than it was in 2010. The large improvement in the trust fund imbalance projected in 2010 is largely unchanged in 2011. Demographic trends and continued high per-person costs combine to explain the continued imbalance in the long-run projections.

Medicare Funding Warning. 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 2011 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. The 2011 Social Security trustees report projects that on a cash-flow basis the trust fund will not return to surplus without further reforms. Consequently, Social Security will no longer act to hold down the unified budget deficit. Even so, the program will continue to experience a surplus for some years because of the Trust Funds' 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 13.4 percent of Social Security covered payroll in 2010 to 14.2 percent of payroll in 2020, 16.7 percent of payroll in 2030 and 17.4 percent of payroll in 2080. Revenues excluding interest are projected to rise only slightly from 12.5 percent of payroll today to 13.3 percent in 2080. Thus the annual balance is projected to decline from -0.9 percent of payroll in 2010 to -1.1 percent of payroll in 2020, -3.4 percent of payroll in 2030, and -4.1 percent of payroll in 2080. On a 75-year basis, the actuarial deficit is projected to be -2.2 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 2036. These projections assume that benefits 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. Some benefits, however, could still be partially funded from current revenues. The 2011 Trustees' report presents projections on this point. Beginning in 2036, 77 percent of projected Social Security scheduled benefits would be funded. This percentage would eventually decline to 74 percent by 2085.

TECHNICAL NOTE: SOURCES OF DATA AND METHODS OF ESTIMATING

The long-range 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 2012-2022, the assumptions are drawn from the Administration's economic projections used for the 2013 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 2011 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—1.9 percent per year.

CPI inflation holds stable at 2.1 percent per year, the unemployment rate is constant at 5.4 percent, the yield on 10-year Treasury notes is steady at 5.3 percent, and the 91-day Treasury bill rate is 4.1 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 as low as 0.4 percent per year. Real GDP growth is projected to

be less than its historical average of around 3.2 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, average real GDP growth averages between 2.3 percent and 2.4 percent per year for the period following the end of the 10-year budget window in 2022.

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 2022, receipts follow the 2013 Budget's policy projections. After 2022, total tax receipts rise gradually relative to GDP. Discretionary spending follows the path in the Budget over the next 10 years and grows at the rate of growth in nominal GDP 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-range economic and demographic assumptions. Medicare benefits are projected based on a projection of beneficiary growth and excess health care cost growth from the 2011 Medicare Trustees' report, 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.