Our long-term simulations continue to highlight the need to focus attention not only on the federal government's near-term budget outlook but also on its longer-term fiscal path. In the near term, deficits are expected to continue to decline from the recent historic highs as the economy recovers and actions taken by Congress and the President begin to take effect. Debt held by the public as a share of gross domestic product (GDP), however, remains well above historical averages. Debt held by the public at these high levels could limit the federal government's flexibility to address emerging issues and unforeseen challenges such as another economic downturn or large-scale natural disaster. Furthermore, in both the Baseline Extended and Alternative simulations, debt held by the public continues to grow as a share of GDP in the coming decades, indicating that the federal government remains on an unsustainable long-term fiscal path (see fig. 1). Rising debt in both simulations is driven by a fundamental imbalance between revenue and spending, which, on the spending side, is driven by the aging of the population and rising health care costs. Significant action to change the long-term fiscal path must be taken soon to minimize the risk that eventual policy changes will be disruptive to individuals and the economy, while also taking into account concerns about near-term economic growth.

**Figure 1: Debt Held by the Public under Two Fiscal Policy Simulations**

Note: Data are from GAO's Spring 2013 simulations based on the Trustees' assumptions for Social Security and the Trustees' and the CMS Actuary's assumptions for Medicare.
The timing and the pace of the debt build-up—and therefore the size of action needed to address it—depend on the specific assumptions used. In the Baseline Extended simulation, which reflects the continuation of current law, debt as a share of GDP declines in the short term before turning up again. In the Alternative simulation, which assumes historical trends and policy preferences continue, federal debt as a share of GDP grows rapidly throughout the period.

The key change in this update is the enactment of ATRA, which, among other changes, permanently extended many of the tax provisions that were previously set to expire under current law and limited the reach of the Alternative Minimum Tax. As a result, revenue in our Baseline Extended simulation is lower as a share of GDP than it was in the Fall 2012 Baseline Extended simulation but remains higher than the 40-year historical average after 2013. In contrast, revenue increased in the first 10 years of the Alternative simulation as a result of changes in tax rates for high-income taxpayers enacted in ATRA. After the first 10 years, however, the Alternative simulation phases into the 40-year historical average for revenue. Therefore, the overall effects of ATRA on the longer-term outlook under this simulation are relatively small.

In both simulations spending for the major health and retirement programs will increase as a share of GDP in coming decades, putting greater pressure on the rest of the federal budget. For the first few decades this spending is driven largely by the aging of the population. The oldest members of the baby-boom generation are already eligible for Social Security retirement benefits and for Medicare, and, as shown in figure 2, the number of baby boomers turning 65 is projected to grow in coming years from an average of about 7,600 per day in 2011 to more than 11,000 per day in 2029. As a result, the share of the population over the age of 65 is projected to increase from roughly 13 percent to over 19 percent during this time.
While the aging population is the largest contributor to health care spending growth in the next few decades, the longer-term outlook depends more heavily on assumptions about growth in the cost of caring for each beneficiary. One way of measuring growth in health spending per beneficiary is through the rate of excess cost growth, or the extent to which the annual growth rate of health care spending per capita exceeds the annual growth rate of potential GDP per capita adjusted to remove the effects of demographic characteristics such as aging. Excess cost growth leads to an ever-growing share of the nation’s income being spent on health care, crowding out spending on all other goods and services. While excess cost growth has averaged around 2 percent over the last 35 years, going forward the Trustees and CBO both assume that excess cost growth will decrease over time because of the financial pressure health care spending is putting on the federal government, states, businesses, and households. How and when this transition takes place, however, is highly uncertain. Furthermore, while health care cost growth has slowed in recent years, it remains unclear to what degree this represents a temporary event related to the recent recession or a larger change to the U.S. health care system resulting from increased efficiency and coordination that may have a more lasting effect.

Our simulations represent two potential paths for future health care cost growth. In the Baseline Extended simulation, the cost-containment mechanisms enacted in the Patient Protection and Affordable Care Act
(PPACA) are assumed to be fully implemented and effective, slowing growth of health care spending over the long term. In this simulation excess cost growth averages 0.2 percent for Medicare over the long term, and spending on Medicare and Medicaid, the Children's Health Insurance Program (CHIP), and exchange subsidies grows from a little less than 5 percent of GDP in 2013 to 9 percent by 2050. However, the Trustees, CBO, and the CMS Actuary have questioned whether certain cost-containment mechanisms can be sustained over the long term. This is reflected in the Alternative simulation in which policies that would restrain spending growth are phased out over time. In this simulation excess cost growth averages 0.8 percent for Medicare over the long term, and spending on Medicare and Medicaid, CHIP, and exchange subsidies grows to over 10 percent of GDP by 2050.

Sensitivity analysis shows that even assuming health care cost per capita does not grow faster than the economy after the first 10 years—an outcome that has not been sustained for any extended length of time in the past several decades—debt held by the public rises steeply in the Alternative simulation in the next couple of decades. This demonstrates that significant policy changes beyond those designed to control per capita health care cost growth need to be taken in the next two decades to put federal debt on a more sustainable path.

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Figures 3 and 4 below show revenue and the composition of spending in the Baseline Extended and Alternative simulations moving forward. In the Baseline Extended simulation, not only is PPACA assumed to slow growth in health care spending, but over the long term discretionary spending is lower than at any point in the last 50 years and revenue is above the historical average. Even in this simulation, by 2030 revenue covers little more than spending on Social Security, Medicare, Medicaid, CHIP, exchange subsidies, and net interest (see fig. 3). There is little room for “all other spending,” which includes national defense, homeland security, and veteran’s health care, as well as investment-oriented spending on highways and mass transit, education, and basic research that helps promote future economic growth.

**Figure 3: Potential Fiscal Outcomes: Revenues and Composition of Spending in the Baseline Extended Simulation**

![Revenues and Composition of Spending](image)

Notes: Data are from GAO’s Spring 2013 simulations based on the Trustees’ assumptions for Social Security and Medicare.
As figure 4 shows, if the federal government follows historical trends and policy preferences, as assumed in the Alternative simulation, and borrows from the public to finance the growing imbalance between revenue and spending, by 2040 more than half of all federal revenue will go to net interest payments. Overall, our simulations illustrate the difficult trade-offs that policymakers will have to consider in order to put the federal government on a more sustainable path.

Figure 4: Potential Fiscal Outcomes: Revenues and Composition of Spending in the Alternative Simulation

One measure of the challenge over the long term is the “fiscal gap.” The fiscal gap represents the difference, or gap, between revenue and noninterest spending over a certain period, such as 75 years, that would need to be closed in order to achieve a specified debt level at the end of the period. From the fiscal gap, one can calculate the size of action needed—in terms of tax increases, spending reductions, or, more likely, some combination of the two—to close the gap.

Balancing Near-Term and Long-Term Considerations
For example, the fiscal gap in our Alternative simulation is 8 percent of GDP (see table 1). This means that revenue would have to increase by roughly 44 percent or noninterest spending would have to be reduced by about 32 percent (or some combination of the two) on average over the 75-year period to keep debt held by the public as a share of GDP in 2087 from exceeding its level at the beginning of 2013 (roughly 72.5 percent of GDP). Even more significant changes would be needed to reduce debt to lower levels.

Table 1: Federal Fiscal Gap under Our Simulations

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Fiscal gap 2013–2087 (percentage of GDP)</th>
<th>Average percentage change required to close gap</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>If action is taken today</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Solely through increases in revenue</td>
</tr>
<tr>
<td>Baseline Extended</td>
<td>3.9</td>
<td>20.4</td>
</tr>
<tr>
<td>Alternative</td>
<td>8.0</td>
<td>44.4</td>
</tr>
</tbody>
</table>

Source: GAO.

Note: Data are from GAO’s Spring 2013 simulations based on the Trustees’ assumptions for Social Security and the Trustees’ and CMS Actuary’s assumptions for Medicare.

Given the current state of the economy, policy changes could be designed to phase in over time to avoid disrupting near-term economic growth and also to provide people with sufficient time to adjust. However, the longer action is delayed the greater the size of those actions will need to be and the risk that the eventual changes will be disruptive and destabilizing to the economy and individuals. Table 1 illustrates how much greater fiscal policy changes would have to be if no actions were taken for the next decade. Under the Alternative simulation, waiting 10 years would increase the fiscal gap to nearly 10 percent of GDP—meaning a revenue increase of about 53 percent or a noninterest spending cut of about 36 percent or some combination of the two would be required to bring debt held by the public back to its level in 2013 by 2087.

Concluding Observations

Addressing the long-term fiscal challenge will not be easy and will likely require difficult choices affecting both revenue and spending. Many of the long-term drivers of the federal government’s fiscal imbalance, such as the aging of the population, are beginning to affect the federal budget at a time when federal debt held by the public is already at historically high levels. Therefore, policy options may already be more constrained. If changes are to be phased in over time to allow the people sufficient time to adjust, action must be taken now. The window of opportunity for putting federal health and retirement programs on a sound footing without disruptive effects on the large population of near retirees is closing. The
recent slowdown in the growth of federal health care spending is encouraging and, if sustained, could have a meaningful effect on the long-term outlook. However, given the aging of the population and the growth of enrollment in federal health care programs projected in the next two decades, slowing the growth in spending per beneficiary alone will not be enough to address the federal government’s fiscal imbalance.

Key Changes since the Last Update

This update incorporates CBO’s February 2013 baseline projections that follow current law at the time. As previously discussed, this includes the effects of ATRA, which, among other changes, permanently extended many of the tax provisions that were previously set to expire and modified tax rates for higher-income taxpayers. Overall, the changes reduced the long-term revenue assumption used in the Baseline Extended simulation relative to our prior update, though revenue in the Baseline Extended simulation remains above historical averages after 2013. Conversely, the changes increased revenue in the first 10 years of the Alternative simulation after which time revenue returns to the historical average.

CBO’s February 2013 baseline projections also include a reduction in its 10-year projections for Medicaid spending, which CBO attributes in part to more people receiving employer-based health care coverage than previously estimated. As a result, spending on Medicaid, CHIP, and exchange subsidies in our simulations, which is extrapolated from the CBO baseline, is lower than it was in the Fall 2012 Update.

Key Assumptions in Our Federal Simulations

Table 2 lists the key assumptions incorporated in the Baseline Extended and Alternative simulations based on the Trustees’ assumptions for Social Security and the Trustees’ and CMS Actuary’s assumptions for Medicare.

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2The CBO report is available at http://www.cbo.gov.
Table 2: Key Budget Assumptions for Baseline Extended and Alternative Simulations Based on the Social Security and Medicare Trustees’ Projections

<table>
<thead>
<tr>
<th>Model inputs</th>
<th>Baseline Extended simulation</th>
<th>Alternative simulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>CBO’s February 2013 baseline that assumes tax provisions expire as scheduled under current law and growth of real income causes a greater proportion of taxpayers’ income to be taxed in higher brackets through 2023; thereafter remains constant at 19.1 percent of GDP (CBO’s projection in 2023)</td>
<td>CBO’s estimates that assume expiring tax provisions are extended through 2023, thereafter phases into the 40-year historical average of 17.9 percent of GDP</td>
</tr>
<tr>
<td>Social Security spending</td>
<td>CBO’s February 2013 baseline through 2023; thereafter phases into the 2012 Social Security Trustees’ intermediate projections</td>
<td>Same as Baseline Extended</td>
</tr>
<tr>
<td>Medicare spending</td>
<td>CBO’s February 2013 baseline through 2023 that assumes cuts in physician payment rates will occur as scheduled under current law at the time and the Budget Control Act’s automatic enforcement procedures reduce spending; thereafter phases into the 2012 Medicare Trustees’ intermediate projections in which cost containment mechanisms, including those enacted in the Patient Protection and Affordable Care Act, reduce excess cost growth to 0.2 percentage points on average over the long term</td>
<td>Based on CMS Actuary’s alternative scenario that assumes physician payment rates grow by 1 percent annually through 2021 and then gradually transition to a long-term growth rate equal to the per capita increase in overall health spending; spending reductions scheduled under the Budget Control Act do not occur, and policies that would restrain spending growth are applied fully through 2019 but begin to phase out thereafter; excess cost growth averages 0.8 percentage point over the long term</td>
</tr>
<tr>
<td>Medicaid, the Children’s Health Insurance Program, and exchange subsidies spending</td>
<td>CBO’s February 2013 baseline through 2023; thereafter growth in spending for these programs is consistent with CBO’s June 2012 long-term assumptions for the number and age composition of enrollees and the 2012 Medicare Trustees’ intermediate assumptions for excess cost growth; excess cost growth averages 0.8 percentage points over the long term</td>
<td>CBO’s February 2013 baseline through 2023; thereafter growth in spending for these programs is consistent with CBO’s June 2012 long-term assumptions for the number and age composition of enrollees under CBO’s alternative assumption that a policy that would slow the growth of per-participant subsidies for health insurance coverage is not in effect and eligibility thresholds are modified to maintain the share of the population eligible for subsidies; as in Baseline Extended, excess cost growth averages 0.8 percentage points over the long term</td>
</tr>
<tr>
<td>Other mandatory spending</td>
<td>CBO’s February 2013 baseline through 2023, which incorporates the reductions in spending scheduled to occur under the Budget Control Act’s automatic enforcement procedures; thereafter remains constant as a share of GDP at 2.4 percent of GDP (implied by CBO’s projection in 2023)</td>
<td>CBO’s February 2013 baseline adjusted for extension of certain tax credits and to exclude the effects of the Budget Control Act’s automatic enforcement procedures through 2023; thereafter remains constant as a share of GDP at 2.5 percent (the level reached in 2023)</td>
</tr>
<tr>
<td>Discretionary spending</td>
<td>CBO’s February 2013 baseline through 2023, which reflects the original caps set by the Budget Control Act, as well as the lower caps triggered by the automatic enforcement procedures; thereafter remains constant at 5.5 percent of GDP (CBO’s projection in 2023)</td>
<td>Follows the original caps set by the Budget Control Act but not the lower caps triggered by the automatic enforcement procedures; after 2023 gradually phases up to 7.5 percent of GDP (the 20-year historical average)</td>
</tr>
</tbody>
</table>

Source: GAO.

Notes: CBO’s projections are from The Budget and Economic Outlook: Fiscal Years 2013 to 2023 (February 2013) and CBO’s The 2012 Long-Term Budget Outlook (June 2012). Trustees projections
are from The 2012 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds and The 2012 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, which were both issued on April 23, 2012. Projections from the CMS Actuary are based on “Projected Medicare Expenditures under Illustrative Scenarios with Alternative Payment Updates to Medicare Providers” (May 18, 2012). We assume that Social Security and Medicare benefits are paid in full regardless of the amounts available in the trust funds.

aPhysician payment rates are scheduled to be reduced by roughly 25 percent at the start of 2014 and smaller amounts in subsequent years under the sustainable growth rate (SGR) system. Since 2003, Congress has taken a series of legislative actions to override scheduled reductions in physician payment rates that would otherwise occur under current law at the time. Physician fee updates set by Congress have averaged 0.8 percent per year over this period.

bThe Budget Control Act established limits on discretionary budget authority for 2012 through 2021. It also included automatic enforcement procedures that will reduce both discretionary and mandatory spending because lawmakers did not enact legislation originating from the Joint Select Committee on Deficit Reduction that would lower projected budget deficits by $1.2 trillion. ATRA reduced the size of these automatic spending reductions scheduled for 2013 to roughly $85 billion and delayed their effects until March 2013. In 2013, these reductions will be accomplished through across-the-board spending reductions known as sequestration. After 2013, spending reductions are achieved through lower limits on discretionary spending and automatic reductions in mandatory spending, including Medicare.

cThe Alternative simulation, which was prepared prior to the enactment of full-year appropriations for fiscal year 2013, assumes that sequestration does not occur as scheduled in 2013. While sequestration has begun to take effect, the difference in spending from this assumption has only a small impact on federal debt in the Alternative simulation in the near-term and a negligible effect over the long term.

dExcess cost growth refers to the annual growth rate of health care spending per enrollee in excess of the annual growth rate of potential GDP, adjusted for demographic characteristics.

Table 3 shows the key economic assumptions that underlie all of our simulations. GDP is held constant across simulations and does not respond to changes in fiscal policy. Also, the implied interest rate on federal debt held by the public in our simulations is held constant over the long term even when deficits climb. With large budget deficits, there could be a rise in the rate of interest and a more rapid increase in federal interest payments than our simulations display.

Table 3: Key Economic Assumptions Underlying All of Our Long-Term Federal Simulations

<table>
<thead>
<tr>
<th>Model inputs</th>
<th>All simulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP growth</td>
<td>CBO’s February 2013 baseline through 2023; thereafter averages 2.1 percent based on the intermediate assumptions of the 2012 Social Security and Medicare Trustees Reports</td>
</tr>
<tr>
<td>Inflation (percentage change in GDP price index)</td>
<td>CBO’s February 2013 baseline through 2023; 2 percent thereafter (CBO’s projection in 2023)</td>
</tr>
<tr>
<td>Interest rate (on debt held by the public)</td>
<td>Rate implied by CBO’s February 2013 baseline net interest payment projections through 2023; phasing to 5.2 percent by 2028 and then constant thereafter (based on CBO’s June 2012 long-term projection)</td>
</tr>
</tbody>
</table>

Source: GAO.
The simulation results depend largely on what is assumed about growth in spending for large entitlement programs. As in previous updates, we also show the Baseline Extended simulation using both Trustees and CBO estimates for long-term spending on Social Security and major health entitlement programs (Medicare, Medicaid, and others). In addition, we show the Alternative simulation using different assumptions about certain health care cost-containment provisions based on CBO and CMS Actuary alternative projections. As figure 5 shows, the results are largely the same. The outlook under either set of assumptions is unsustainable.

Figure 5: Debt Held by the Public under Fiscal Policy Simulations with Different Assumptions for Major Entitlement Programs

Note: Data are from GAO’s Spring 2013 simulations based on the Trustees’ and CBO’s assumptions for Social Security and the Trustees’, CMS Actuary’s, and CBO’s assumptions for Medicare.
Table 4 shows the assumptions incorporated into the simulations based on CBO’s projections for major entitlement programs used in the comparison shown in figure 5.

<table>
<thead>
<tr>
<th>Model inputs</th>
<th>Baseline Extended simulation</th>
<th>Alternative simulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Security spending</td>
<td>CBO’s February 2013baseline through 2023; thereafter based on CBO’s June 2012 long-term projections for Social Security</td>
<td>Same as Baseline Extended</td>
</tr>
<tr>
<td>Medicare spending</td>
<td>CBO’s February 2013 baseline through 2023; thereafter based on CBO’s June 2012 long-term projections under its extended-baseline scenario that assumes policies that would restrain spending growth are not in effect after 2029 and excess cost growth averages 1.2 percentage points per year over the long term</td>
<td>Based on CBO’s projections under its alternative fiscal scenario that assumes physician payment rates are maintained at 2012 levels through 2022; spending reductions under the BCA do not occur; policies to restrain growth are not in effect after 2022; and excess cost growth averages 1.3 percentage points per year over the long term</td>
</tr>
<tr>
<td>Medicaid, the Children’s Health Insurance Program, and exchange subsidies spending</td>
<td>CBO’s February 2013 baseline through 2023; thereafter based on CBO’s June 2012 long-term projections under its extended-baseline scenario which follows current law and assumes that excess cost growth averages 0.7 percentage points per year over the long term for Medicaid and CHIP and transitions to the underlying rate for private insurance premiums after 2029 for exchange subsidies</td>
<td>CBO’s February 2013 baseline through 2023; thereafter CBO’s June 2012 projections under its alternative fiscal scenario in which a policy that would slow the growth of per-participant subsidies for health insurance coverage is assumed to not be in effect; eligibility thresholds are assumed to be modified to maintain the share of the population eligible for subsidies; excess cost growth for exchange subsidies is consistent with the Baseline Extended; and excess cost for Medicaid and CHIP growth averages 0.7 percentage points per year over the long term</td>
</tr>
</tbody>
</table>

Source: GAO.

Notes: CBO’s projections are from The Budget and Economic Outlook: Fiscal Years 2013 to 2023 (February 2013) and CBO’s The 2012 Long-Term Budget Outlook (June 2012). CBO assumes that full benefits are paid regardless of the amounts available in the trust funds.

^Excess cost growth refers to the annual growth rate of health care spending per enrollee in excess of the annual growth rate of potential GDP, adjusted for demographic characteristics.

This product is part of a body of work on federal debt and the long-term fiscal challenge. Related products can be found at http://www.gao.gov/special.pubs/longterm/index.html.

Our simulations provide illustrations—not precise forecasts—of the relative outcomes associated with different fiscal policy assumptions. These simulations are not predictions of what will happen in the future, as policymakers would likely take action to prevent damaging out-year fiscal consequences. While recognizing the uncertainty inherent in long-term projections, we determined that the data used were sufficiently reliable for our purposes of illustrating the potential fiscal outcomes under different
sets of broad policy decisions. To assess the reliability of the data used in our simulations, we reviewed the data to ensure it was presented consistently across documents and that the methodology used to create the projections was clear and reasonable. Where possible, we also assessed whether the data were reasonable by comparing to other’s reporting of similar data.

We conducted our work from February 2013 to April 2013 in accordance with all sections of GAO’s Quality Assurance Framework that are relevant to our objectives. The framework requires that we plan and perform the engagement to obtain sufficient and appropriate evidence to meet our stated objectives and to discuss any limitations in our work. We believe that the information and data obtained, and the analysis conducted, provide a reasonable basis for any findings and conclusions in this product.
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