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Decline in Projected Long-Term Debt Mostly Reflects Slower Health Cost Growth, Lower Interest Rates

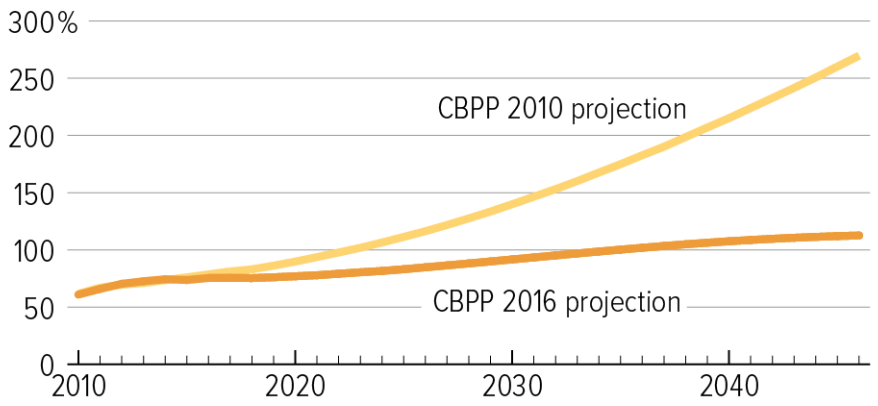
By Richard Kogan

CBPP's latest projections show that by 2046 the federal debt will grow to approximately 113 percent of gross domestic product (GDP, a measure of the nation's annual income and output) — less than half as high as our January 2010 projections, which showed a debt ratio of 270 percent in 2046. (See Figure 1.) Congressional Budget Office (CBO) projections from 2009 and 2016 show similar improvement. The significant change in our projections largely reflects slower growth in health costs and dramatically lower interest rates (see Figure 2 and Table 1).

FIGURE 1

Projected Debt Ratio in 2046 Has Fallen by More Than Half

Debt as share of gross domestic product



Source: CBPP calculations, using data from the Congressional Budget Office, the Office of Management and Budget, and the Social Security and Medicare trustees

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Projected Debt Ratio Is 157 Percentage Points Below 2010 Estimate

Some five-sixths of the decline in the projected 2046 debt ratio between CBPP's January 2010 estimate — which was based on data that CBO and the Medicare trustees provided in the summer of 2009 — and our August 2016 estimate[1] derives from just two factors:

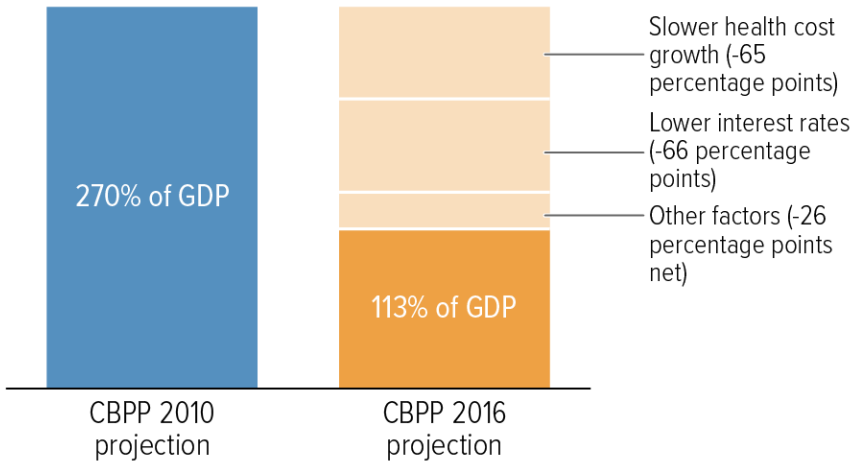
- The projected costs of the major health programs are far lower now. By itself, lower projected health spending reduces the 2046 debt ratio by 65 percentage points.
- Lower interest rates reduce the 2046 debt ratio by 66 percentage points. Lower interest rates shrink the interest payments on any level of debt directly. Also, interest costs compound less rapidly when rates are lower, so the debt grows less rapidly from year to year.

All other factors combined reduce the 2046 debt ratio by 26 percentage points. Some of them lower the debt ratio; others raise it.

FIGURE 2

Drop in Projected Debt Mostly Reflects Slower Health Cost Growth, Lower Interest Rates

Projected debt in 2046 as percent of gross domestic product



Source: CBPP calculations, using data from the Congressional Budget Office, the Office of Management and Budget, and the Social Security and Medicare trustees

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[1] See Richard Kogan, Paul Van de Water, and Chloe Cho, *CBPP Projections Show Long-Term Budget Outlook Has Improved Significantly Since 2010 But Remains Challenging*, August 18, 2016, http://www.cbpp.org/research/long-term-budget-outlook-has-improved-significantly-since-2010-but-remains-challenging. We focus on 2046 because CBO's most recent long-term projection focuses on that date. Last year our projection of the 2046 debt ratio was even more favorable: 93 percent of GDP. The deterioration in our projections since 2015 largely reflects CBO's reduction in estimated revenue collections; while most of that revenue loss results from CBO's more pessimistic view of revenues, some was caused by the enactment of legislation last December continuing various tax provisions otherwise scheduled to expire.

Slower Health Spending Growth

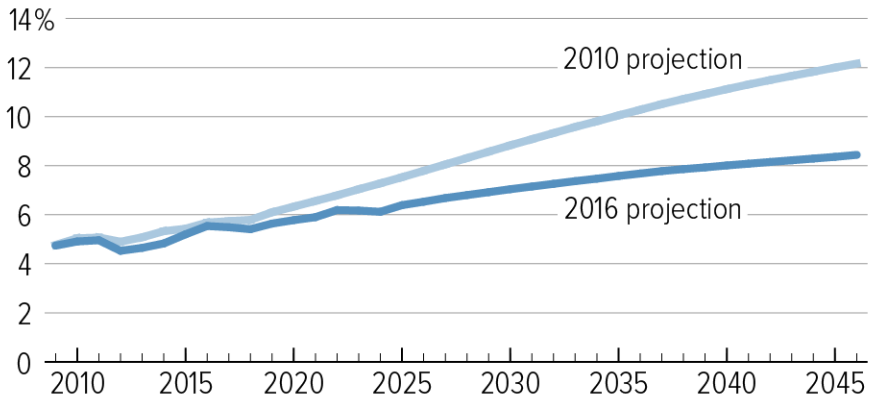
Our current projections for health costs are well below those from January 2010 (see Figure 3), even though the earlier projections predated the Affordable Care Act (ACA) and thus did *not* include its Medicaid expansion or its subsidies to help people buy coverage in the health insurance marketplaces. As a result, overall health spending is not only projected to be lower but also to cover 20 million more people.

The cost of the ACA coverage expansions is more than offset by a combination of factors that have slowed health cost growth. These are (1) the ACA's short- and long-term reductions in Medicare payment rates to health care providers; (2) the changes in health care payment and delivery systems initiated by the ACA and the 2015 Medicare Access and CHIP Reauthorization Act; and (3) the growing effects of a health cost slowdown in the public and private sectors that commenced before the ACA.

FIGURE 3

Projected Costs of Major Health Programs Have Fallen Significantly

2010 projection vs. 2016 projection, as a percent of gross domestic product



Note: The 2010 projection encompasses Medicare and Medicaid; the 2016 projection encompasses Medicare, Medicaid, the Children's Health Insurance Program, and the new marketplace subsidies.

Source: CBPP based on Congressional Budget Office and Medicare trustees data from 2009 (for the 2010 projection) and 2016 (for the 2016 projection)

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Lower Interest Rates

Seven years ago, CBO projected that the average interest rate the Treasury pays on newly issued debt would rise from its extraordinarily low level of 0.7 percent in 2009 to 5.1 percent in 2019. Since then, however, actual interest rates have remained low, and CBO has repeatedly lowered its projections of the average interest rate on new Treasury debt. In its March 2016 projections, for example, CBO sees that rate rising from its current 1.6 percent to only 3.5 percent before leveling off in 2021.

The significant reduction in actual and projected interest rates, relative to those expected seven years ago, reduces the projected 2046 debt ratio by 66 percentage points. (See the Appendix for our methodology.)

Higher Gross Domestic Product

Another factor is that CBO's projections of seven years ago showed annual GDP rising from $14.1 trillion in 2009 to $60.5 trillion in 2046. CBO now projects that GDP will reach $63.6 trillion in 2046, and this higher GDP means that any given amount of debt will equal a slightly smaller percentage of GDP. This factor by itself reduces the 2046 debt ratio by 13 percentage points, even with no change in the dollar level of projected debt.

TABLE 1

Factors Affecting CBPP's 2046 Projected Debt Ratio

Changes in projected debt held by the public in 2046, measured as a percent of GDP, from January 2010 estimate to August 2016 estimate

	Percent of GDP
Debt ratio estimated in January 2010	**270**
Factors that reduce (-) or increase (+) the debt ratio:	
Slower growth of major health programs	-65
Lower interest rates	-66
Higher GDP	-13
Higher revenues	-22
Lower funding for appropriated ("discretionary") programs	-27
Higher Social Security costs	+10
Higher spending on other mandatory programs	+15
Miscellaneous factors	+11
Total, reduction in the debt ratio	**-157**
Debt ratio estimated in August 2016	**113**

Source: CBPP calculations, using data from the Congressional Budget Office, the Office of Management and Budget, and the Social Security and Medicare trustees

Other Changes

Changes in other aspects of the budget also alter our projected debt ratio in one direction or the other, though far less significantly.

Revenues are projected to be modestly higher than in our January 2010 projection, reducing the 2046 debt ratio by 22 percentage points.

Three congressional decisions have contributed. First, Congress, in making permanent most of the tax cuts first enacted during the Bush administration, scaled back the tax cuts primarily or exclusively for those at the very top of the income spectrum. Second, Congress extended most but

not all of the tax breaks known as the "tax extenders."[2] Third, the Affordable Care Act included a number of new revenue sources to help pay for its coverage expansions. These include higher Medicare taxes on high-income individuals and taxes on industries that directly benefit from health reform. Overall, these legislated increases more than offset CBO's reestimates of projected revenues outside of legislation, which have been downward in net.

Annually appropriated ("discretionary") programs, both defense and non-defense, have been cut below the levels projected seven years ago and are projected to continue on a lower path; this reduction accounts for a decline of 27 percentage points in the 2046 debt ratio.

The cuts overwhelmingly reflect the 2011 Budget Control Act's imposition of statutory limits on appropriated programs starting in 2012 and the further lowering of those limits through sequestration starting in 2013, which has been only partially reversed.[3] In addition, our assumptions about the cost of war efforts in Afghanistan and other areas though 2046, and our assumptions about future emergency costs related to major natural disasters, are now somewhat lower than our January 2010 projections; these types of costs are not subject to those statutory limits.

Social Security is now projected to be somewhat more costly than CBO projected seven years ago. Its estimated cost in 2046 has risen from 5.7 percent of GDP to 6.1 percent, raising the 2046 debt ratio by 10 percentage points.

Other mandatory programs are also projected to be somewhat more costly than projected seven years ago, which raises the 2046 debt ratio by 15 percentage points. Higher spending on veterans' benefits — overwhelmingly, compensation for service-connected disabilities — accounts for three-fifths of this increase. Relative to CBO's 2009 projections, the Department of Veterans Affairs has been able to process a far larger number of claims than expected, and the proportion of claimants with serious (and thus more expensive) disabilities has increased substantially.

In addition, our January 2010 projection treated all aspects of the 2009 Recovery Act as temporary, including provisions expanding the Earned Income Tax Credit for larger families and married filers and enabling more very poor working families to receive the refundable part of the Child Tax Credit. Tax credits are considered mandatory spending to the extent that they exceed families' income tax liabilities, so legislation that extended and then made permanent those 2009 changes raised mandatory spending; this factor accounts for about one-quarter of the 15-point increase attributable to "other mandatory" spending.

Miscellaneous factors raise the projected 2046 debt ratio by 11 percentage points. Almost all of this reflects the financing of student loans and other federal direct loan programs. By ending new student loan guarantees and substituting direct student loans, the enactment of the Student Aid and Fiscal Responsibility Act (SAFRA) in March 2010 required more borrowing. However, this extra

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[2] Our January 2010 projection assumed that all the Bush tax cuts and all the tax extenders would continue permanently.

[3] The 2011 Budget Control Act imposed statutory caps on defense and non-defense discretionary funding through 2021 and provided for reductions in those caps if Congress failed to enact another $1.2 trillion in ten-year deficit reduction through mandatory program cuts and revenues increases by January 2012. When Congress failed to enact that additional deficit reduction, the further discretionary cuts, called "sequestration," took effect in the spring of 2013.

borrowing is fully offset by the acquisition of more student loan assets of equal value to the Treasury, so it does not affect the sustainability of the government's financial position.

Conclusion

Over the last seven years, the projected debt-to-GDP ratio has fallen very significantly; it is less than half as high as we and others had previously estimated and is no longer projected to rise at explosive rates. This is good news, though not enough to put the debt issue to bed, as our August report makes clear. Indeed, current projections show that stabilizing the debt ratio will require policymakers to take more action: revenue increases, program cuts, or some combination, and in amounts large enough that such policies will be challenging to adopt.

CBO Shows Similar Decline in Projected Debt Ratio

In 2009, CBO projected a debt ratio of 280 percent for 2046; its equivalent newest projection is only 128 percent.[a] Our projected debt ratio for 2046 has fallen from 270 percent to 113 percent over essentially the same period, as this paper explains. CBO's policy assumptions and projection methodology often change from year to year, as do ours on occasion, so exact comparability is unattainable. However, these sets of projections are as comparable to each other as possible.

Specifically, in 2009 CBO created a revenue scenario that assumed the Bush tax cuts would expire after 2010 and an "Alternative Fiscal Scenario" that assumed they would become permanent. Our January 2010 revenue projection was based on the latter, which we viewed as the revenue projection most reflective of current policy at the time. And, indeed, the bulk (though not all) of the Bush tax cuts were ultimately made permanent.

Similarly, in 2016, CBO reported its long-term projections both with and without macroeconomic feedback. CBO's feedback calculation assumes that a growing debt will slightly slow GDP growth and raise interest rates, relative to the levels CBO assumes without such feedback. CBO projections in prior years had not included feedback. Our prior projections were based largely on CBO's prior projections, so comparability demands that any comparison between prior and current projections must use CBO's new projection without macroeconomic feedback.

We use the CBO projections that do not include feedback for two additional reasons. First, estimates of the macroeconomic feedback of policy changes are highly uncertain.[b] Second, long-run budget projections without macroeconomic feedback are fully sufficient to provide a measure of the amount of primary deficit reduction (revenue increases and program cuts, not including the associated interest savings) needed to restore fiscal sustainability.[c] In general, if the primary budget is in balance, the debt will not grow faster than the economy.

The main reason that our projected 2046 debt ratio of 113 percent is below CBO's projection of 128 percent is that we assume somewhat lower spending for discretionary programs, both defense and non-defense. CBO projects that discretionary programs will grow *with GDP* after the ten-year budget window, while we project somewhat slower growth, tracking *population growth plus inflation,* an assumption that is more consistent with the historical pattern and is a more neutral method of extending current policy. In addition, we assume that war costs will phase down from their current levels, while CBO keeps them constant after reflecting inflation.

[a] For CBO's year-by-year data for its June 2009 projection, see https://www.cbo.gov/sites/default/files/51119-2009-06-LTBOSuppData.xls (tab F1-3). For CBO's July 2016 spreadsheet showing year-by-year data, see https://www.cbo.gov/sites/default/files/51119-2016-07-LTBO-4.xlsx, tab 10, "Extended baseline without macroeconomic feedback."

[b] Paul N. Van de Water and Chye-Ching Huang, *Budget and Tax Plans Should Not Rely on "Dynamic Scoring,"* Center on Budget and Policy Priorities, updated November 17, 2014, http://www.cbpp.org/research/budget-and-tax-plans-should-not-rely-on-dynamic-scoring.

[c] Richard Kogan *et al., Difference Between Economic Growth Rates and Treasury Interest Rates Significantly Affects Long-Term Budget Outlook,* Center on Budget and Policy Priorities, February 27, 2015, Appendix 2, http://www.cbpp.org/research/federal-budget/difference-between-economic-growth-rates-and-treasury-interest-rates.

Appendix: Methodology

We derive our August 2016 long-term projection from CBO's March 2016 baseline, its July 2016 Long-Term Budget Outlook (which is itself built from CBO's March 2016 baseline), and the 2016 reports of the Social Security and Medicare trustees, as explained in the technical note at the end of our own recent long-term projection (cited in footnote 1). Our prior long-term projections were derived in much the same way.[4]

This appendix explains how we quantify the various factors that have caused our new projection to differ from the one we made in January 2010, which used data and projections from seven summers ago. Specifically, as Table 1 shows, we projected a debt ratio for 2046 of 270 percent of GDP seven years ago, while we now project a far lower debt ratio, 113 percent of GDP. While there is more than one way to disaggregate the factors affecting projected debt ratios, our method is especially direct.

We start by observing that if the projected dollar level of debt in 2046 had not changed at all, the higher projection of 2046 GDP that CBO now uses would by itself reduce the 2046 debt ratio by 13 percentage points. From here, we use the new, higher projection of GDP in our calculations.

We next examine the nominal dollar values for each component of the budget, comparing those we projected seven years ago with those we now project. Let's use annually appropriated (discretionary) programs — both defense and non-defense — as an example.

Our 2010 projection showed discretionary expenditures rising from $1,379 billion in 2010 to $2,847 billion in 2046. Our current projection includes actual expenditures for 2010 through 2015 and projected expenditures for 2016 through 2046. It therefore covers the same 37 years and shows discretionary expenditures rising from $1,347 billion in 2010 to $2,608 billion in 2046.

- First, for each of the 37 years we subtract the new figure from the older figure, producing a stream of dollar differences. In every one of those 37 years, the new projection shows lower expenditures than the old projection; the savings over the 37 years total $7,085 billion.
- Second, we calculate the amount by which these savings reduce federal interest payments on the debt, using the interest rates assumed at the time. The interest savings total $10,096 billion over 37 years.
- Third, we divide the sum of these two streams of savings ($17,181 billion) by the 2046 GDP of $63,594 billion that is currently projected. The result — 27 percent of GDP — captures the change in the debt ratio *solely* due to the reduction in discretionary programs plus the debt service (interest) savings on those reduced costs.

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[4] Also see the Appendix to Kathy Ruffing, Kris Cox, and James Horney, *The Right Target: Stabilize the Federal Debt*, Center on Budget and Policy Priorities, January 12, 2010, http://www.cbpp.org/sites/default/files/atoms/files/01-12-10bud.pdf. Our January 2010 projection of Social Security relied entirely on CBO's 2009 long-term projection, while our more recent reports have used CBO Social Security projections within the standard ten-year budget window but extrapolated Social Security costs outside the window using the Social Security trustees' rate of cost growth (measured as a percent of GDP). If we had used our current methodology in 2010, our January 2010 Social Security projection would have changed very little.

This example illustrates our approach in analyzing the effect on the 2046 debt ratio of changes in each component of spending and revenues. We also use the same approach to analyze the effect of changes in the starting 2009 level of debt and changes in non-budgetary financing costs.

None of these factors interacts with any other. As a result, we can simply add together the increases or decreases in the 2046 debt ratio, calculated separately, due to changes in projected revenues, mandatory spending, and discretionary spending, as well as the miscellaneous factors described in this paper. Those factors combine to lower the 2046 debt ratio by 78 percentage points below the level projected in January 2010. In dollar terms, they combine to reduce the projected 2046 debt by $31 trillion directly, which in turn reduces interest costs by another $18 trillion (using the interest rates assumed at the time).

However, actual interest costs (total expenditures in the Net Interest function) over the 2010-2046 period are now projected to be $60 trillion lower than projected in January 2010. Only $18 trillion of that reduction reflects lower borrowing. The remaining $42 trillion reflects lower interest *rates* than assumed seven years ago, which by themselves reduce the 2046 debt ratio by 66 percentage points of GDP.