Federal Health Spending and the Budget Outlook: Some Alternative Scenarios

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Abstract
Health care spending growth has slowed significantly in recent years, but there is uncertainty about how it will evolve in the future. We examine the federal fiscal outlook under alternative scenarios with annual excess cost growth in major federal health programs ranging from zero to 2.5 percent. We highlight two major conclusions. First, even if federal health care spending is brought under control immediately and permanently – zero excess cost growth – the nation still faces a sizable long-term fiscal gap. Second, variation in excess cost growth that is “small,” in the sense that it is within the range of recent historical experience, can nonetheless have enormous impacts on the size of the fiscal shortfall facing the country.

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I. Introduction

Although the federal budget outlook has improved somewhat in recent years, medium- and long-term fiscal imbalances remain significant. This paper builds on the budget projections and analysis in Auerbach and Gale (2014) and focuses specifically on how alternative scenarios for the trajectory of federal health care spending affect the fiscal outlook. Health care spending growth has slowed significantly in recent years, part of the reason the budget outlook has improved. But there is significant uncertainty about how future spending will evolve. Health care plays such a large role in federal spending that variations in spending trajectories can have first-order effects on the fiscal outlook.

We examine the impact of four different health care spending scenarios on the budget outlook. One scenario is based on the current CBO baseline; the others assume zero, intermediate and 2.5 percent annual excess cost growth rates in federal health care spending. Our main results are that variations in the projected annual excess cost growth between zero and 2.5 percent have enormous impacts on the federal budget outlook. With no excess cost growth in the future, the long-term fiscal gap is sizable—about 2.6 percent of GDP. But with annual excess cost growth of 2.5 percent, the fiscal gap explodes—exceeding 30 percent of GDP.

These results highlight two key points. First, even if health care costs are brought under control immediately and permanently, the nation still faces a sizable long-term fiscal gap. (For more discussion of the long-term fiscal imbalance, see Auerbach and Gale (2014)). Second, variation in projected excess cost growth that is “small,” in the sense that it is within the range of recent historical values, can nonetheless have enormous impacts on the size of the fiscal shortfall.

Section II discusses trends in federal health care spending. Section III describes the underlying model we use for budget projections and the health care spending scenarios analyzed. Section IV presents the projected paths for debt and deficits through 2040 and estimates fiscal gaps under each
scenario. Section V discusses the appropriate policy response to uncertainty. Section VI provides a short conclusion.

II. Trends in Federal Health Care Spending

Figure 1 shows significant growth in federal outlays for health care as a share of GDP over the last five decades. Health spending includes net spending on Medicare, Medicaid, Veteran’s Medical Care, health programs for the defense department, net federal employees’ health benefits, health insurance assistance, and other health programs (including the Children’s Health Insurance Program). In 1962, federal health care outlays were just 0.4 percent of GDP. Following the creation of Medicare and Medicaid in 1965, spending climbed steadily, rising to 1.3 percent in 1970, 3.0 percent in 1990 and 6.2 percent of GDP in 2010. Spending peaked at 6.2 percent in 2011, before declining to 5.8 percent of GDP in 2013.

Similar trends appear in health care spending as a percentage of total outlays, shown in Figure 2. Health accounted for just 2.1 percent of federal spending in 1962, but rose to 7.1 percent in 1970 and grew steadily to 26.5 percent in 2010. In 2013, health care spending accounted for 27.7 percent – its highest value to date – of all federal outlays.

The concept of excess cost growth is useful for understanding the evolution in historical health costs. The Centers for Medicare and Medicaid Services (CMS) defines excess cost growth as “the difference between (i) the U.S. per capita growth rate in age-gender-adjusted health-care costs and (ii) the per capita growth rate in GDP (both in constant dollars)” (CMS 2013). As shown in Table 1, annual excess cost growth rates have varied substantially over the last forty years with no particular trend. Average excess cost growth rates were almost 3 percent in the 1980s, turned negative between 1995 and 2000, equaled 2.7 percent between 2000 and 2005, and then slowed to 1.3 percent between 2005 and 2011.
While the future trajectory of health spending is unknown, there is a continuing debate about the causes of the recent slowdown. Some part of the decline can be attributed to the recession that occurred between 2007 and 2009 and the slow and incomplete economic recovery that has followed. Other plausible explanations for slower cost growth pre-date the recession, such as the increase in patient cost-sharing that has occurred for upwards of a decade.

The broad-based slowdown in health spending growth rates since the recession suggests the possibility of “structural” or more permanent shift. The potential underlying factors behind this shift include changes in the insurance mix, improvements in provider efficiency and quality, declines in the pace of innovation or development of new blockbuster drugs, the expiration of some major prescription drug patents, and diffusion of Accountable Care Organizations and other changes that emphasize quality, rather than volume, of medical treatment. Some of these changes may be occurring in anticipation of expected health policy changes, as well as in response to existing changes.¹

Even given these changes, future health spending trends are uncertain. Some of these changes may reduce the long-term growth rate of health care spending. Others may represent one-time declines in overall health costs but not declines in the long-term growth rate. (These changes may manifest themselves as declines in health care spending growth during the transition period over which they are phased in, but then have no effect on growth rates after they are fully phased in.) A third possibility is that excess cost growth rates will rebound and spending will catch up to its previous trend, as the suppression of recent cost increases gets reversed.

In summary, there has been clear cause in recent years for some reduction in projections of future health care spending, but the magnitude, timing, and permanence of such changes are not clear. As CBO director Douglas Elmendorf (2013) recently wrote, “the slowdown in health care cost growth has

been sufficiently broad and persistent to persuade us to make significant downward revisions to our projections of federal health care spending. [But] growth in such spending remains the central challenge in putting the federal budget on a sustainable path.”

III. Model Specification

This section discusses the underlying model and the alternative health care spending scenarios we employ to project fiscal outcomes. The model is described in more detail in Auerbach and Gale (2014).

A. Model

Our 10-year projections adjust CBO’s February 2014 baseline (CBO 2014) to provide what we believe is a more accurate representation of “current policy.” First, CBO assumes that all temporary tax provisions (other than excise taxes dedicated to trust funds) expire as scheduled. Based on repeated extensions in the past, we assume that these provisions are extended in the future as well. Second, the CBO baseline maintains military spending at current levels in the future. However, consistent with stated Administration policy and based on CBO’s projections of scenarios not included in its official baseline (CBO 2014, Table 1-5), we assume that war-related defense spending will fall steeply after 2013. We do not alter CBO’s assumption that the discretionary spending caps and sequestration procedures as imposed in the Budget Control Act of 2011 will be enforced.

For budget projections beyond 10 years, we assume that most categories of spending and revenues remain constant at their 2024 share of GDP in subsequent years. For OASDI, however, we project all elements of spending and dedicated revenues (payroll taxes, income taxes on benefits, premiums and contributions from states) using the intermediate projections in the 2013 Trustees report. Social Security spending and payroll taxes follow the growth rates assumed in the Trustees’ projections of the ratios of taxes and spending to GDP for the period 2024–2090 for OASDI, assuming the ratios are constant at their 2090 values in subsequent years.
The projected overall rate of nominal economic growth after 2024 is assumed to be 4.10 percent, the rate predicted by the Congressional Budget Office for 2024. Net interest payments through 2024 are taken from CBO projections. The effective interest rate in 2024, 4.37 percent, is calculated as the ratio of 2024 net interest payments divided by the 2023 debt, and is used to represent the interest rate in future years.²

By assuming that tax revenues and many categories of spending remain constant relative to GDP, we are not simply projecting based on current law but instead are assuming that policymakers will make a number of future policy changes, including a continual series of tax cuts and discretionary spending increases. If current-law tax parameters were extended forward, income taxes would rise as a share of GDP (due to bracket creep and rising withdrawals from retirement plans). Our projection implicitly assumes policymakers will cut taxes, in order to maintain the revenue share of GDP. If discretionary spending were held constant in real terms, it would fall continually as a share of GDP. Our projection assumes that a wealthier and more populous society will want to maintain discretionary spending as a share of GDP.³

B. Health Care Spending Scenarios

The sensitivity analysis for health care spending focuses on four components of federal health outlays: Medicare, Medicaid, CHIP and health insurance exchanges. Together, these four items comprise 4.6 percent of GDP in 2013, more than three-quarters of the 5.8 percent of GDP devoted to federal health care spending.

Consistent with the assumptions made for other papers in the conference, we employ four scenarios for health care spending. In the first scenario, which we call current policy, we assume that

² Auerbach and Gale (2014) use slightly different assumptions that give similar long-term results. The projected overall economic growth rate is taken from the Social Security report and equals 4.63 percent. The interest rate is assumed to be the Social Security Trustees’ projected long-run interest rate on government debt, 5.63 percent.

³ Kamin (2012) and Kogan et al. (2013) provide additional perspective on these assumptions.
through 2024 federal health care spending follows the projections in the CBO current-law baseline, plus an amount to deal with the so-called “doc fix.” Under the CBO baseline, payments to physicians under Medicare are scheduled to decline by about 24 percent in April 2014. In every year since 2003, however, policy makers postponed these reductions. We assume that similar actions will prevail in the future and thus include the cost of maintaining physician payment rates under Medicare at their current levels. For 2025 to 2088, we assume that federal health care outlays grow at the rate implied by the Medicare Trustees (2013) assumptions for the growth rate in Medicare spending and by the CBO Long-Term Budget Outlook (2013) for Medicaid, CHIP and health insurance exchanges. After 2088, we hold the spending values at the share of GDP attained in 2088.

In the remaining three scenarios, we start from 2013 (a year in which the “doc fix” was in place) and employ different assumptions about the excess cost growth for all components of federal health care spending.4 In the second scenario, excess cost growth is zero for 2013 to 2088. In the third, the ECG rate falls linearly over time—from 1.5 percent in 2013 to 0 in 2088. In the fourth, excess cost growth is 2.5 percent per year from 2013- to 2088. In each scenario, after 2088, we hold the spending values constant at the share of GDP attained in 2088.

Table 2 and Figure 3 show the resulting projections for Medicare, for Medicaid, the health insurance exchanges, and CHIP, and for the sum of those categories. The differences in projected health care spending occur gradually but eventually become enormous. From 2014 to 2024, the current policy baseline projects lower Medicare spending than does the “no excess cost growth” scenario because CBO has built negative excess cost growth into its baseline assumptions for Medicare. After 2024, when the current policy baseline shifts from CBO assumptions to the growth rates implied by the Medicare Trustee reports, Medicare spending under the current policy baseline catches up to the “no excess cost

4 These scenarios were provided by Louise Sheiner.
growth” scenario in 2035. In contrast, CBO’s baseline through 2024 incorporates moderate excess cost
growth in Medicaid, CHIPS, and exchanges, roughly consistent with the intermediate excess cost growth
scenario.

By 2024, projected federal health spending in the programs noted ranges from 6.07 and 7.89
percent of GDP. By 2040, the estimates range from less than 7 percent of GDP to almost 13 percent of
GDP. The lowest estimate remains below 8 percent in subsequent years, but the highest estimate rises
to 21 percent of GDP by 2060 and 43 percent of GDP by 2088.

IV. Results

A. Projected Deficits and Debt

Figure 4 shows the projected deficit as a share of GDP under each of the health scenarios for the
period from 2014 to 2040. Like the differences in health care spending, the differences across the
scenarios shown in Figures 4 and 5 are small in the first several years but grow to enormous values over
time.

In 2024, deficits range from 4.1 percent of GDP under the “no excess cost growth” scenario to
6.3 percent of GDP under the “2.5 percent excess cost growth” scenario. By 2040, these values range
from 6.5 percent of GDP to 15.4 percent.

In 2024, the range of outcomes for debt as a share of GDP covers 81 percent to 92 percent. By
2040, the debt/GDP ratio is 112 percent under the most optimistic scenario and 187 percent under the
most pessimistic.

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5 The slight dip in Medicare spending as a share of GDP from 2040 to 2050 under the zero excess cost growth scenario is a result
of the aging of the baby bust generation, which succeeded the baby boom generation. This population effect is also present in
the other scenarios, of course, but it is dominated by positive cost growth in those scenarios.

6 The slight decline in deficits from fiscal year 2022 to fiscal year 2024 reflects timing issues, not a real change in fiscal policy. As
CBO (2014) explains, October 1, 2022 and October 1, 2023 land on weekends, so some payments will be made at the end of
September (the end of the previous fiscal year) rather than in October of those years. CBO notes that were it not for these
timing quirks, the deficit (under current law and under our projections of current policy) would be 0.2 percent of GDP higher in
2024.
B. Fiscal Gap Calculations

The fiscal gap is an accounting measure that is intended to reflect the long-term budgetary status of the government (Auerbach 1994). The fiscal gap answers the question: if you want to start a policy change in a given year and reach a given debt-GDP target in a given future year, what is the size of the annual, constant-share-of-GDP increase in taxes and/or reductions in non-interest expenditures that would be required? For example, one might ask what immediate and constant policy change would be needed to obtain the same debt-GDP in 2090 as exists today. ⁷ Or one might ask, if we wanted the debt-GDP ratio to return to its 1957-2007 average of 36 percent by 2040, what immediate and constant-share-of-GDP change would be required starting in 2019?

Table 3 reports fiscal gaps under the four health spending scenarios. Under current policy, the permanent fiscal gap is 4.74 percent of GDP if policy adjustments begin in 2014 and 4.80 percent of GDP if policy adjustments do not begin until 2019. If the goal is to have the debt/GDP in ratio in 2040 equal the current debt level, the gap is “only” 1.68 percent if policy adjustments start in 2014 and 2.09 percent if policy adjustments do not begin until 2019. If, however, the goal is to cut the debt approximately in half as a share of GDP over the next 25 years, and return the debt/GDP ratio to 36 percent -- approximately its level before the Great Recession and its average level in the 50 years before the Great Recession -- then the fiscal gap is 2.94 percent of GDP for policy adjustments beginning in 2014 and 3.62 for adjustments beginning in 2019.

The fiscal gaps are lower under the “no excess cost growth” scenario, but still substantial. The long-term gap exceeds 2 percent of GDP and maintaining the current debt/GDP level in 2040 presents a

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⁷ Over an infinite planning horizon, this requirement is equivalent to assuming that the debt-to-GDP ratio does not explode (Auerbach 1994, 1997). For the current value of the national debt, we use publicly-held debt. An alternative might be to subtract government financial assets from this debt measure, but the impact on our long-term calculations would be small (reducing the fiscal gaps by less than 0.1 percent of GDP).
fiscal gap of 1.30 percent if policy adjustments begin in 2014 and 1.59 percent of GDP if adjustments begin in 2019.

The gaps are higher under the intermediate projection – 7.26 percent on a permanent basis and 2.54 percent through 2040. The gaps are much, much higher under the scenario with excess cost growth of 2.5 percent. In that case, the permanent gap exceeds 30 percent of GDP and, even just through 2040, the gap exceeds 4 percent of GDP if policy adjustments begin immediately and reach nearly 5 percent of GDP if policy adjustments begin in 2019.

**IV. Uncertainty**

The range of possible outcomes for health care spending and the significant role of health care programs in the budget imply significant uncertainty about the fiscal outlook. Although the uncertainty is sometimes offered as a reason not to act, there are several reasons why the fiscal outlook, given the uncertainty it contains, should generate proactive policy.

First, regardless of whether the long term turns out to be somewhat better or worse than predicted, there already is a debt problem. The debt-GDP ratio has already doubled in recent years, to more than 70 percent, the highest share in U.S. history except for a few years around World War II. The future is already here. The large deficits and rising debt that is in the baseline budget projections even with no excess cost growth will hurt economic growth and reduce fiscal flexibility in future years regardless of whether the most dire long-term budget projections actually materialize.

Second, purely as a matter of arithmetic, the longer we wait, the larger and more disruptive the eventual policy solutions will need to be, barring a marked improvement in the fiscal picture. Policymakers certainly may not want to reduce spending or raise taxes when the economy is weak, but that is different from not planning ahead.

Third, uncertainty can cut both ways, and the greater the uncertainty the more we should address at least part of the problem now. The problem could turn out to be worse than expected, in
which case delay would make solutions even more difficult politically and even more disruptive economically. If people are risk-averse, the existence of uncertainty should normally elicit precautionary behavior—essentially “buying insurance” against a catastrophic long-term outcome by reducing the potential severity of the problem—through enactment of at least partial solutions to the budget problem.

Fourth, although the point may seem obvious, it is useful to emphasize that even if the main driver of long-term fiscal imbalances is the growth of entitlement benefits, this does not mean that the only solutions are some combination of benefit cuts now and benefit cuts in the future. For example, when budget surpluses began to emerge in the late 1990s, President Clinton devised a plan to “Save Social Security First.” Without judging the merits of that particular plan, we note that Clinton recognized that Social Security faced long-term shortfalls and, rather than ignoring those shortfalls, aimed to address the problem in a way that went beyond simply cutting benefits. A more general point is that addressing entitlement funding imbalances can be justified precisely because one wants to preserve and enhance the programs, not just because one might want to reduce the size of the programs. Likewise, addressing these imbalances may involve reforming the structure of spending, raising or restructuring revenues, or creating new programs, as well as simply cutting existing benefits.

V. Conclusion

The United States faces a significant long-term fiscal shortfall even if health care costs are brought under control on an immediate and permanent basis. But if health care costs grow rapidly, but within the range of their historical variation, the impact on an already tenuous fiscal situation would potentially be disastrous. This implies that while there are a variety of potential fixes to the budget problem, involving a variety of potential tax increases and spending cuts, health care reform needs to figure prominently in any fiscal solution.
References


Congressional Budget Office. 2013d. “CBO’s Baseline Budget Projections, as of May 2013, With Percentages of GDP Updated to Reflect Recent Revisions by the Bureau of Economic Analysis.” Data or Technical Information. Available at: <http://cbo.gov/publication/44574>


Figure 1. Federal Health Care Outlays, 1962-2013
(As Percent of GDP)

Source: OMB Historical Table 16-1 FY15.
Federal Health Care Outlays are composed of the Net Medicare Spending, Medicaid,
Defense Health Program, Veterans Medical Care, Net Federal Employees Health
Benefits, Health Insurance Assistance and Other Health Spen
Figure 2. Federal Health Care Outlays, 1962-2013
(As Percent of Federal Outlays)

Source: OMB Historical Table 16-1 FY15.
Federal Health Care Outlays are composed of the Net Medicare Spending, Medicaid,
Defense Health Program, Veterans Medical Care, Net Federal Employees Health Benefits,
Health Insurance Assistance and Other Health Spen
Figure 3. Health Care Spending Under Four Scenarios, 2014-2088 (As Percent of GDP)

Source: Auerbach and Gale (2014), Louise Sheiner.
Figure 4. Federal Deficit Under Four Scenarios, 2014-2040 (As Percent of GDP)

Source: Authors’ calculations.
Figure 5. Federal Debt Under Four Scenarios, 2014-2040 (As Percent of GDP)

Source: Authors’ calculations.
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<th>Period</th>
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<td>2000-2005</td>
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<td>2005-2011</td>
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Source: CMS Office of the Actuaries (2013b)
### Table 2.

**Health Spending under Four Scenarios, 2013-2025 and Selected Years 2030-2088**

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<th>Year</th>
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<td>2.96</td>
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<td>2088</td>
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### Table 3
Fiscal Gap

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<th>Intermediate ECG</th>
<th>2.5% ECG</th>
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<td>2040</td>
<td>Current</td>
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<td>2014</td>
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<td>36% of GDP</td>
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<tr>
<td>2019</td>
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<td>36% of GDP</td>
<td>3.62</td>
<td>3.13</td>
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Source: Authors’ calculations.