# PRELIMINARY DRAFT--DO NOT QUOTE WITHOUT PERMISSION

## **Budget Blues: The Fiscal Outlook and Options for Reform**

Alan J. Auerbach, William G. Gale, Peter R. Orszag, Samara R. Potter<sup>1</sup>
December, 2002

The other chapters in this book tend to focus on one particular area of public policy. Should society devote more resources to helping unskilled workers get job training? Should defense spending increase? Should we provide new tax subsidies for retirement saving? This chapter focuses on a broader, but in some sense more straightforward, question: Once all the individual components and policies are added together, is the government living within its means? Are the set of tax laws that legislators have enacted consistent with the variety of spending programs they have created?

If tax and spending decisions only had implications for the current year, it would be straightforward to determine whether the government was living within its means: One could simply compare revenue and spending in that year. But the economic effects of past and current legislation play out over many years—even decades. As a result, decision makers and the public require a clear understanding of the claims that previously enacted laws and current decisions make on resources not only today but in the future, and on whether laws currently in place commit the government to future taxes that equal, exceed, or fall short of future spending obligations. Indeed, it is difficult to see how intelligent fiscal policy could be made in the absence of such information.

Ideally, the federal budget would provide this information. In practice, it does not, at least partially because of the difficulty of the task itself. But even compared to what is feasible within a timely and understandable budget, current practice falls short of what would be desirable. First, the budget uses assumptions defining current tax and spending policy that are widely regarded as unrealistic. Second, official budget projections employ a ten-year horizon.

Practical considerations make some such limit necessary, as projections become increasingly speculative as the horizon lengthens. But such a budget "window" excludes the fiscal effects associated with the aging of the baby boomers, most of which occur well after the next 10 years. Third, even within the 10-year budget window, budget projections are subject to substantial uncertainty, in part because the economic events that affect the projections are difficult to predict accurately.

The upshot of these concerns is that the official budget bears little relation to the underlying financial status of the federal government. A person asking if the government is living within its means would be hard-pressed to find the answer in current official budget projections.

But getting the answer right is important because a government living beyond its means can impose substantial costs on the economy. If revenues are not sufficient to match spending, the government must meet the shortfall either by printing money or by borrowing.<sup>2</sup> Sustained reliance on printing money to finance deficits can lead to escalating levels of price inflation, which can have debilitating consequences. Sustained reliance on government borrowing leads to significant reductions in the domestic capital stock (to the extent that government borrowing draws financing away from private capital in the United States) or increased indebtedness to the rest of the world (to the extent that government borrowing draws financing from other countries). Regardless of how the government borrowing is financed, Americans' claims on future output would be reduced and future living standards would be harmed. As a result, establishing and maintaining a sustainable fiscal policy is central to the nation's long-term growth prospects.<sup>3</sup>

The government's ability to run a sustainable fiscal policy, though, depends on the provision of appropriate information. More accurate budget figures would give policy-makers and the public the best available information to guide policy choices. For example, when President Bush came into office, the official projected ten-year surplus was \$5.6 trillion—more than 4 percent of the economy—over the ensuing ten years. More realistic estimates, however,

suggested that, even before considering the President's tax cut, the ten-year surplus was only about \$1 trillion and was substantially uncertain, and longer-term projections showed a significant fiscal shortfall (Auerbach and Gale 2001). Nevertheless, the public debate that led to the \$1.35 trillion tax cut in 2001 ignored the long-term figures and focused on the faulty, official ten-year projections. To be sure, some would argue that the tax cut was the right choice under any budget situation. At the very least, though, a more informative debate and a better-informed decision would have occurred if policy makers and the public had focused on more realistic budget figures.

The difference between the official budget estimates and more reasonable projections are even more striking today, in part because the 2001 tax cut exacerbated the bias in the official numbers. Indeed, the impact of more realistic spending and tax assumptions has become large enough to convert a forecast ten-year surplus of \$1 trillion into a *deficit* of more than \$5 trillion. The resulting deficit amounts to almost 4 percent of the economy and about 20 percent of federal revenues over the next 10 years.

Using longer time horizons, the budget picture is even bleaker. Although the government provides no regular budget estimates beyond a ten-year horizon, spending on Social Security, Medicare, and Medicaid is virtually certain to grow faster than national income or revenues as the baby boom generation retires, life spans lengthen, and *per capita* health care expenditures rise. We estimate that federal revenues are likely to fall short of federal spending by 4 to 8 percent of GDP in the long run. That is, it would require an increase in federal revenues of about 20-38 percent, a comparable declining in spending, or some combination of the two, to bring the long-term budget into balance. These projections, even more than the 10-year forecasts, are subject to error, but a large shortfall is probably a safe bet even after taking the relevant uncertainties into account.

The resulting budget outlook—bad over the next decade and worse in future years—presents policy-makers with difficult choices. There are only three ways to close the fiscal gap:

encouraging economic growth, which makes the costs of federal spending more affordable; raising tax revenues; or reducing spending. The first way is easy to embrace, but hard to achieve. The second and third are politically difficult: Tax increases and spending cuts do not tend to be popular, however necessary they may be.

Given the uncertainty inherent in the long-term estimates--which implies the possibility that large long-term deficits might not materialize--and the daunting economic and political risks associated with large-scale tax increases and spending cuts, elected officials have so far chosen not only to ignore the long-term problems, but actually to make them worse by enacting significant tax cuts and spending increases in recent years.

We believe that increasing the fiscal gap is a significant policy error and that actions to reduce the gap should come sooner rather than later. We present estimates of the extent to which alternative tax and spending policies would close the fiscal gap. Moreover, because the specific actions needed are politically difficult, we also examine changes in budget rules that could nudge elected officials toward responsible behavior. Although it is possible to make the budget process more conducive to long-term fiscal discipline, in the end there is no substitute for making painful choices.

#### **Building Blocks**

Budget experts use a specialized vocabulary as short-hand to represent complex concepts and rules (Box 1). The most common measure of the federal government activity is the "unified budget," which was adopted in 1967 to implement recommendations of the President's Commission on Budget Concepts. It includes almost all of the activities of the federal government. Expenditures and revenues are measured on a cash-equivalent basis, which means that accrued and accruing assets and liabilities are generally not counted.<sup>4</sup>

The unified budget is useful for several purposes. The unified budget balance essentially equals the change in federal government debt held by the public. Deficits correspond to increases, surpluses to reductions, in debt held by the public. The unified budget balance shows net cash flow between the private sector and the federal government. It is one indicator of the impact of government operations on the private economy.

It is an imperfect indicator, however.<sup>5</sup> The state of the economy affects outlays and revenues, and hence the unified budget surplus or deficit. During a recession, for example, tax revenues tend to fall, and spending through such programs as Food Stamps, unemployment insurance, and Medicaid tend to expand. As a result, unified budget deficits tend to increase and surpluses tend to fall even if policy is unchanged. Analysts sometimes use a "cyclically adjusted" budget balance to eliminate such transitory economic influences. Such a cyclically adjusted balance is an estimate of what the budget balance would be if economic resources were fully employed. A deficit in the budget as conventionally reported may reflect no more than the transitory effects of an economic slowdown; a deficit in the cyclically adjusted budget suggests a structural imbalance between revenues and expenditures.

Another reason the unified budget is not an accurate indicator of the effect of government policy on the economy is that to the extent that currently legislated policies have effects in future years, they can influence the economy now but not show up in short-term budget projections. In some cases, the lags can be quite long. As a result, cash flow over a few years provides a misleading picture of the long-term budget position of the federal government when current or past policies result in a spending-revenue imbalance after the end of the budget projection period. Under current laws, the primary source of such imbalances is long-term commitments to pay pension and health care benefits to the elderly through Social Security, Medicare, Medicaid, and the Federal Employees Retirement program. There are several potential ways to address this problem, each with different strengths and weaknesses.

One approach is to exclude some or all of these programs from the official budget. In various pieces of legislation between 1983 and 1990, Congress took a step in this direction by classifying Social Security as "off-budget." The Congressional Budget Office and the Office of Management and Budget now report revenues and expenditures not only for the unified budget, but also for "off-budget" programs and "on-budget programs." The exclusion from the "on-budget" accounts of current cash flow surpluses in Social Security partially offsets the omission of sizeable deficits in that program that are expected to occur in years beyond the 10-year budget window. Focusing on the on-budget accounts gives a somewhat more accurate picture of the current fiscal status of the government than does the unified budget, but represents an awkward half-step to examining long-term budget issues directly.

An alternative solution is to extend the budget horizon beyond ten years. The Social Security and Medicare actuaries, for example, annually publish seventy-five year projections of the financial balance under these programs. This approach captures projected shortfalls in Social Security and other programs and generates long-term budget figures. Naturally, however, estimating over a longer horizon generates increased uncertainty.

The next two sections adopt these two approaches in analyzing the budget outlook. Later in the chapter, we discuss alternative approaches to measuring the fiscal status of the government and the effects of current government policies on the economy.

## The Ten-Year Budget Outlook

Figure 1 shows the Congressional Budget Office's (CBO's) August 2002 baseline for the ten-year unified budget and on-budget accounts. CBO reports a unified budget deficit of \$157 billion in 2002. It predicted that the baseline deficit would fall steadily and turn into a surplus in 2006 that rises to more than \$500 billion by 2012.<sup>7</sup> Over the ten years from 2003 to 2012, the CBO baseline shows a cumulative unified budget surplus of \$1.0 trillion, all of which is accounted for by surpluses during 2011 and 2012--that is, the surplus through 2010 is essentially

zero. Figure 1 also shows the baseline on-budget balance. Because Social Security is projected to run a cumulative surplus of approximately \$2.5 trillion during the ten-year budget window, excluding these surpluses results in a cumulative on-budget deficit of \$1.5 trillion.

## Adjusting the Baseline for Likely Outcomes

The CBO publishes such revenue and outlay baselines at least twice a year. CBO describes the budget baseline as a mechanical forecast of current policy and that is intended to serve only as a "neutral benchmark....according to rules [that are] set forth in law and long-standing practices...." The budget baseline is useful--indeed, it is necessary--because Congress currently operates under a set of budget rules that prescribe the manner in which spending and taxes can change over time. The baseline is used for measuring the costs of proposals that change tax law, spending rules, or spending amounts to ensure that such proposals are consistent with the current rules.

The CBO baseline budget projections dominate public discussions of the fiscal status of the government, but as CBO itself emphasizes, the baseline is not intended to serve as a prediction of likely budget outcomes, for at least three reasons. First, major new initatives may be enacted. Second, the economy--and with it revenue and spending totals--may evolve differently than the baseline projections assume. Third, the set of assumptions about spending and tax policy options used to develop the baseline are often unrealistic.

To obtain a better understanding of whether the government is living within its means under current policies, we adjust the baseline budget figures. To do this, we maintain the assumption that no major new initiatives are enacted and that the economy evolves according to CBO's projection. But we make what we believe are more realistic assumptions than the baseline about what constitutes current policy for spending and taxes. This clearly involves a set of judgment calls, so we explain the adjustments and their justifications below.

The first area where CBO's baseline assumptions do not appear to be good predictors of likely outcomes involves discretionary spending, which represents slightly more than a third of total outlays. Discretionary spending typically requires new appropriations by Congress every year. That is, in any given year, there are no laws explaining what discretionary spending will be in future years. This raises the issue of what levels should be assumed in the budget projections for such spending. CBO routinely assumes that *real* discretionary spending (that is, spending adjusted for inflation) will remain constant at the level prevailing in the first year of the ten-year budget period. Because population and income grow over time, this assumption implies that by 2012 discretionary spending will fall by about 20 percent relative to gross domestic product (GDP) and by about 9 percent in real *per capita* terms.

Although judgments may reasonably differ about future spending choices, CBO's assumption is unrealistic in an economy with expanding defense needs and other concerns. Because some real growth in discretionary spending is likely even just to continue current policies, CBO's projections understate future deficits and overstate estimates of future surpluses. In light of the recent rebound in discretionary spending, we believe that a baseline computed on the assumption that real discretionary spending grows at the same rate as real GDP would be a more appropriate indicator of likely budget outcomes if there is no major change in priorities.

The second area where the baseline makes unrealistic assumptions involves expiring tax provisions. CBO assumes that Congress will extend expiring spending programs, but is legally required to assume that all temporary tax provisions (other than excise taxes dedicated to trust funds) expire as scheduled, even if Congress has repeatedly renewed them. The assumption regarding spending is reasonable, since spending programs with expiration dates are normally renewed. But the assumption regarding taxes is not reasonable in most cases. The Internal Revenue Code currently contains three sorts of expiring tax provisions. The first includes provisions of the 2001 tax cut, the Economic Growth and Tax Relief Reconciliation Act (EGTRRA). All of these provisions "sunset" or end automatically within the next ten years. The

second category includes the elements of the 2002 economic stimulus package. Third, other tax provisions have statutory expiration dates but are routinely extended for a few years at a time as their expiration date approaches. We believe that the most accurate assumption of current policy, on balance, would be that these various provisions will be extended (see Box 2).

The alternative minimum tax (AMT) is a dramatic example of how following current law generates unlikely outcomes. The AMT was designed in the late 1960s, and then strengthened in 1986, to curb excessive use of tax shelters and other tax avoidance (see Box 3). The AMT runs parallel to the regular income tax system. It uses a somewhat different measure of income, permits fewer deductions, and applies flatter rates than does the regular income tax. In theory, each taxpayer must compute tax liability under both the conventional income tax and the AMT and pay the larger liability. In practice, the AMT currently generates larger liability for so few taxpayers—about 3 percent—that few filers, other than the tiny minority who might be affected, bother with it.

Because the AMT is not adjusted for inflation, while the ordinary income tax is, the AMT applies to ever more tax payers as prices rise. In addition, EGTRRA, which cut the ordinary income tax but not the AMT, will greatly increase the number of people subject to the AMT. All told, by 2010 an estimated 36 million filers will become subject to the AMT under current law. This result is troubling in large part because the AMT is significantly more complex than the regular tax. Policy-makers will therefore be under powerful pressure to modify the AMT. Accordingly, we assume that a more likely outcome would be to hold the constant at 3 percent the share of taxpayers facing the AMT. The legislation to achieve this result would sharply lower revenues—by more than \$600 billion over the decade from 2003 through 2012.<sup>11</sup>

## **Retirement Funds**

The unified budget baseline generally uses cash-flow accounting to measure outlays and revenues over a fixed period, currently ten years. In the case of programs under which future

liabilities are accruing, this practice is misleading. Currently, taxes earmarked to pay for Social Security and Medicare Hospital Insurance exceed outlays on those programs. But in the long-run, the programs face significant deficits. Yet the current cash-flow surpluses in Medicare and Social Security, as well as general revenues allocated to trust funds for future federal military and civilian employee pension programs, are counted as part of the unified budget. As noted above, one approach to dealing with this kind of program is to move the programs "off-budget" and that is the approach we follow in this section.<sup>12</sup>

# <u>Implications of the Adjustments</u>

Table 1 and Figure 2 show the sizable effects of adjusting the surplus for current policy assumptions and retirement trust funds. The CBO unified budget baseline projects a ten-year surplus of \$1.0 trillion, with surpluses rising sharply over time. Adjusting the CBO baseline for our assumptions regarding current policy implies that the unified budget will be in deficit to the tune of \$1.9 trillion over the next decade. Adjusting further by taking the retirement funds off-budget would generate a ten-year deficit of \$5.4 trillion. While the precise figures should not be taken literally due to uncertainty and other factors, the basic trends in the data are clear. The CBO baseline suggests that the budgetary future features rising surpluses over time, at least within the 10-year window. Our adjusted baseline suggests rising deficits over time.

#### The Long-Term Fiscal Gap

The adjusted budget measures in Table 1 and Figure 2 depict more accurately than does the CBO unified budget baseline the cash-flow budget prospects over the next decade. Yet any budget measure that is limited to developments over the next decade is inherently imperfect. As noted, although Social Security and Medicare are currently running cash flow surpluses, each faces large and growing projected cash-flow deficits under current law. In the context of an aging population and rapidly rising medical care expenditures, an accurate picture of the government's long-term fiscal status is impossible without inclusion of these deficits.

We present estimates of the "fiscal gap," the increase in taxes or reductions in non-interest expenditures, measured as a share of GDP, that would be required if implemented immediately to hold constant the ratio of government debt to GDP. <sup>13</sup> This measure of the fiscal gap describes the current long-term budgetary status of the government.

We present several measures of the gap. One set uses the CBO baseline for spending and taxes over the next decade. After the first decade, we assume that all taxes (including those earmarked to pay for Social Security and Medicare) and discretionary spending remain the same share of GDP as they were in 2012.<sup>14</sup> We assume that Social Security and Medicare expenditures follow the 2002 intermediate projections of the Social Security and Medicare actuaries. We also assume that Medicaid spending grows at a rate determined by the growth of the population and *per capita* health care spending. Interest payments are determined by debt accrual and interest rates. We present estimates through 2075 and for the indefinite future.

The least pessimistic projection uses CBO's baseline revenue and spending figures for the next decade and then the long-term assumptions for the rest of the period ending in 2075. Under these assumptions, the fiscal gap is 1.4 percent of GDP (table 2). An immediate tax increase or spending cut of 1.4 percent of GDP in each year from 2002 through 2075 would maintain fiscal balance over this period. That shift translates into a current tax increase or spending cut of about \$150 billion a year—approximately 7 percent of the budget.

These fiscal gap figures reflect a sharp projected rise in spending on Social Security, Medicare, and Medicaid—from about 9 percent of GDP in 2012 to 15 percent by 2040 and 21 percent by 2075, the last year of this projection. Under this projection, these three programs would ultimately absorb a larger share of GDP than does all of the federal government today. To be sure, these programs have been amended frequently in the past, and virtually no one expects them to persist unchanged for the next seven decades. The projections, however, indicate what

will happen if action is not taken, thereby serving as a benchmark that indicates the size of the changes in spending and revenues that are needed.

Because these programs continue to grow faster than GDP, extending the horizon increases the fiscal gap. To maintain the debt/GDP ratio indefinitely requires that taxes be increased or spending cut by 4.1 percent of GDP. The gap increases with the projection period because the budget is projected to be substantially in deficit after 2075. This result, like the earlier one, is explained mainly by population aging and attendant increases in pension and health care costs.

The fiscal gap is sensitive to revenue and spending assumptions over the next decade. Using our adjusted revenue and spending figures for the next 10 years, and assuming those changes persist over time, raises the fiscal gap through 2075 from 1.4 to 4.8 percent of GDP. Using our adjusted baseline implies that it would take spending cuts or tax increases equal to 7.8 percent of GDP to close the *permanent* fiscal gap, rather than 4.1 percent of GDP under the CBO baseline. These comparisons underscore the fact that changes within the current budget window can have large effects on long-term gap measures if they persist over time.

#### Uncertainty

Substantial uncertainty surrounds the short- and long-term budget projections. Much of the problem stems from the fact that the surplus or deficit is the difference between two large quantities, taxes and spending. Small percentage errors in either can cause large percentage changes in the difference between them. For example, if annual economic growth exceeded forecasts by 0.5 percentage points, the economy would be about 5 percent larger than forecast after a decade. Revenues would increase above and spending would decline below forecasts. The resulting budget surplus would be \$1 trillion dollars larger or the deficit \$1 trillion smaller than forecast. Such a shift would be sufficient to double the CBO baseline surplus shown in table 1. Conversely, annual growth about 0.5 percentage points below forecast would be

sufficient to eliminate that projected 10-year surplus (CBO 2002x, Appendix A). In addition, even controlling for the size of the economy, revenues significantly exceeded what revenue estimators had expected in the late 1990s and fell significantly short in 2001-2002.

As a result, budget projections can change significantly on a year-to-year basis. For example, in January 2001, CBO forecast a unified budget surplus for 2002 to 2011 of \$5.6 trillion. Shortly thereafter, Congress and the Administration agreed to cut taxes over the next decade. The economy weakened, and the nation fell victim to terrorist attack. A scant eighteen months later, the overall surplus for the 2002 to 2011 time period had fallen to \$336 billion. Of this \$5.3 trillion shift, the 2001 tax cut and the associated increases in interest payments accounted for about \$1.7 trillion. The economy, the stock market, and other factors accounted for the rest.

The Congressional Budget Office is unusually candid in acknowledging these projection surprises. Recent CBO publications have included a "fan graph," based on CBO's past forecasts, that shows the likelihood of different budget outcomes (see figure 3, which reproduces the fan graph for 2002). It shows graphically the wide range of possible short- and medium-term outcomes.

Not only are forecasts often far off the mark, but errors in one direction tend to be followed by errors in the same direction the next year. It is particularly difficult to predict and understand turning points. Nonetheless, CBO's forecasts appear to be unbiased in the sense that positive and negative errors have roughly offset one another over time and are at least as good as those provided by OMB, the major macro-econometric models, and the Blue Chip forecasters. <sup>16</sup>

Long term projections are subject to these and other uncertainties. Small differences in growth rates sustained over extended periods can have surprisingly large economic effects. For example, if the United States were to grow by 3 percent per year it would be about twice as large by 2075 as it would be if it grew 2 percent annually. Holding the tax system fixed, government

revenues would be much higher with 3 percent growth than with 2 percent growth. Whatever a rapidly growing economy chooses to do with the extra revenues—cut tax rates, boost government spending, or pay down public debt—it has vastly larger options than does a slow-growth economy. A one percentage point difference in annual economic growth is well within the variation found among responsible forecasts.

A second source of uncertainty is the characterization of "current policy." For example, in 2000 CBO raised its assumption regarding the growth of Medicare and Medicaid spending by 1 percentage point per year starting in 2020. This change alone raised the fiscal gap for the 2000–2070 period by 1.7 percent of GDP and the permanent fiscal gap by 3.4 percent of GDP. The long-term projections we report also incorporate the assumption that effective income tax rates do not increase as GDP rises. But that assumption implies that bracket widths, personal exemptions, the standard deduction, and other nominal quantities increase faster than they do under current law. Otherwise, real economic growth will push households into higher marginal tax rates and raise the tax share. In this case, our "current policy" projections rest on the tacit assumption that Congress continually lowers statutory tax rates or reduces the statutory base of taxable income. In the case of Social Security and Medicare, we assume that benefits rise with average real earnings, as called for under current law. If we instead assumed constant real *per capita* Social Security and Medicare costs, the fiscal gap would shrink or vanish. This would mean, however, that retirement benefits were falling on a continual basis relative to wages.

Changes in demographic factors and economic behavior generate a third source of uncertainty. <sup>19</sup> In the short run, variations in birth rates and life expectancy cannot have much effect on the labor force, the number of children who need education, or the number of elderly who are disproportionately likely to be dependent on public services. But over extended periods, plausible variations in demographic variables can have large effects on economic growth, which influences revenues, and on the demand for public services, which affects outlays.

The imminent retirement of the baby-boom generation, the leading edge of which turns 62 in 2008, underscores the importance of changes in retirement age in affecting federal revenues and outlays. From 1950 to the mid-1980s, American men were retiring at ever earlier ages. Labor force participation rates may now be rising a bit among men in their 60s. Whether men (and women) have begun to extend their working lives or they resume the trend toward early retirement will profoundly affect the overall labor force and hence total production and tax collections. It will also influence public spending because it will affect the number of people who are dependent on Medicare and Medicaid. (The age at which people first claim Social Security benefits has little effect on overall program costs because older first-time claimants receive actuarially increased annual benefits.)

Other behaviors can have important effects on government revenues and expenditures—for example, how long young people stay in school, how many non-aged adults drop out of the labor force, how many immigrants enter the country, how much people voluntarily save (which affects investment, economic growth, and interest rates), and what happens to work-place safety and other environmental hazards and, hence, to disability rates. Many of these behaviors depend sensitively on public policies, as well as on autonomous changes in individual preferences.

Demographic and behavioral change can interact in complex ways in their effect on the fiscal outlook. If longevity increases, retirement ages remain about where they are, and the advent of physical and mental frailty are not delayed, the aging of the baby-boom generation can impose enormous costs on the working population. On the other hand, if retirement ages increase and medical advances delay physical and mental decline, a growing population of people of advanced years would cause less severe fiscal problems or none at all.

Uncertainty makes long-term projections imprecise. Nonetheless, almost all studies that have examined the issue suggest that even accounting for major sources of uncertainty, serious long-term fiscal problems will remain.<sup>20</sup>

## **Policy Responses**

The budget outlook presents policy makers with a complex and difficult set of problems. First, a medium-term deficit is highly likely and a significantly larger long-term fiscal gap appears probable. Second, the sources of the two problems are quite different. The ten-year deficits entirely reflect deficits in operations of government other than Social Security or Medicare, both of which are currently running cash-flow surpluses and are expected to continue doing so for many years. Over the longer term, both Social Security and Medicare costs are likely to rise more than either taxes earmarked to them or revenues in general. These two programs, along with Medicaid, account for most of the long-term fiscal gap. Third, raising taxes or cutting spending enough to close the fiscal gap will be painful, both for the elected officials who must enact them and for the citizens who will pay higher taxes and receive fewer public services than current policy indicates.

In this section, we address several policy issues. To what extent should officials alter long-term policy commitments now, in light of the large but uncertain, long-term fiscal gap? What changes should be made? How important is it to close the immediate and near-term deficit? Can changes in the way budget information is presented to officials and the public improve the quality of fiscal decisions? A related issue is whether Congress could improve its own budget decisions by adopting new rules of procedure.

#### The Importance of Addressing the Long-Term Fiscal Gap

Some have argued that the correct policy response to the fiscal gap is to ignore it, for any of four reasons. First, the significant uncertainty surrounding future events means that fiscal prospects might improve markedly even without any significant policy change. If so, it would be desirable to avoid the painful tax increases or spending cuts that would be required to close the gap. Second, steady economic growth means that future generations will be better off than the current generation and, over long periods of time, substantially better off. If future generations

are richer, they will be better able to afford the fiscal burdens. Third, some claim that fiscal deficits are desirable because they make it difficult to raise public spending and thus serve to constrain the size of government. Adherents of this view believe that the prospect of a smaller government provides economic (and perhaps political or ideological) benefits that outweigh the costs of worsening fiscal prospects. Fourth, some analysts claim that budget deficits do not have deleterious economic effects.

We believe it would be a mistake to ignore the fiscal gap, and that all four of the claims above are flawed. First, although fiscal prospects are uncertain, we note above that most studies show that it is likely that a sizable fiscal gap will remain even adjusting for a plausible range of uncertainty. In simplest terms, population aging and health care technologies will create budgeting problems under almost any scenario. The likelihood of a long-term fiscal gap should spur a precautionary response from policymakers now.<sup>21</sup>

Likewise, although future generations will in all likelihood receive higher wages than current generations, the fiscal gap is so large under current policies that it would be prudent and fair for the current generation to bear a non-trivial portion of the costs. Doing so would still leave a sizable burden for future generations to shoulder. Moreover, one must also account for the distortionary effects of taxation in comparing the welfare of current and future generations. The welfare costs of tax distortions rise roughly with the *square* of revenues as a share of GDP, so the higher revenues required of future generations would have a much larger negative effect on welfare than is directly attributable to the increase in revenue.

Although it may make sense to constrain government, choosing to ignore the fiscal gap is a serious gamble. First, it may not work--or at least may not work for a long time. When taxes were cut in the 1980s for example, federal spending actually rose as a share of GDP. It was not until budget rules were imposed in 1990 and reauthorized subsequently that federal spending came under control. In the meantime, the ratio of public debt to GDP doubled. Second, if reporting a larger budget deficit does constrain spending, that goal can be achieved by

emphasizing the long-term fiscal gap figures reported above, or some of the other measures considered below, rather than the official budget projections. The use of alternative budget measures would raise the reported deficit, but it does not create a fiscal gamble. Third, better budgetary rules--discussed below--could also help constrain federal spending. For all of these reasons, if the goal is to constrain spending, ignoring (or increasing) the fiscal gap is not the best way to achieve that goal. Moreover, under current circumstances, with a fiscal gap that is large and is concentrated in politically popular programs, ignoring the fiscal gap now may create the need for massive, last-minute future policy changes.

Finally, the claim that budget deficits do not have deleterious long-term effects is based on the notion--holding spending constant--that when the government increases its borrowing, private citizens increase their saving by the same amount. Economic evidence firmly rejects this view. As a result, sustained budget deficits result in more government borrowing, less national saving, a smaller capital stock owned by Americans and lower future incomes than if deficits were eliminated. This implies that future living standards of Americans would be significantly higher if we act now to close the fiscal gap (see Box 4).

Acting sooner also gives people time to adjust their own plans based on changes in public programs. Because any solution to the Social Security and Medicare financing problem will likely involve benefit cuts, tax increases, or both, acting now would give people more advance notice and a chance to modify their plans. If the fiscal gap widens with time, as current projections indicate, gradual change now may spare the nation serious dislocations from abrupt and massive change later.

Finally, if the long-term budget outlook is not kept front and center in the policy debate, elected officials can all too easily succumb to the temptation to use any temporary surpluses that emerge not to address looming problems but to finance tax cuts or spending increases that will further aggravate the long-term problem. Precisely such shortsightedness seems to have contributed to the size of the tax cuts enacted in 2001.

## Policies to Close the Long-Term Fiscal Gap

A variety of policies are available to help close the gap. If the tax cuts enacted in 2001 that took effect before the end of 2003 were to remain in place and were made permanent, but all cuts scheduled to take effect beyond 2003 were suspended, the fiscal gap between now and 2075, relative to our adjusted budget baseline, would be cut by 0.8-0.9 percent of GDP.<sup>22</sup> By way of comparison, the estimated Social Security deficit over the same period is 0.7 percent of GDP.<sup>23</sup>

An even more aggressive policy would be to take seriously the expiration dates in EGTRRA and allow the tax cut to expire as scheduled at the end of 2010. This policy would have no effect on the CBO baseline, which is based on the assumption that EGTRRA will indeed expire. But relative to our adjusted baseline, which treats EGTRRA as permanent, allowing the tax cut to expire would have an effect on the final two years of the ten-year forecast, reducing the projected 10-year deficit by roughly half a trillion dollars. More importantly, allowing the tax cuts to expire would reduce the fiscal gap measured to 2075 by 40 percent—from 4.8 percent to 2.9 percent of GDP.

Suspending those elements of the tax cut that have not yet been implemented or allowing the entire tax cut to expire on its legislated schedule would be clear steps toward fiscal responsibility, but a large fiscal gap would still remain. Because Medicare, Medicaid, and Social Security will comprise the bulk of the federal budget, the solution to the fiscal gap must involve these three programs. Eliminating the Social Security actuarial deficit through 2075, as just noted, would reduce the fiscal gap through 2075 by 0.7 percent of GDP.<sup>24</sup>

Medicare poses even more serious challenges, as health spending will be driven not only by the demographic trends that affect Social Security, but also by the revolutionary—and to date largely cost-increasing—technological advances emerging from bio-medical research. These costs also depend sensitively on which services Medicare covers and how much of the rising

total cost of care Medicare pays. Currently, Medicare coverage omits major services, such as out-patient prescription drugs and ordinary nursing home care and patients' share of medical costs is higher than under most private insurance plans. The elderly and disabled will almost certainly have to bear increasing costs for health care. But it is also clear that higher taxes—payroll or other taxes earmarked to Medicare or general revenues—will be necessary to close the current projected deficit, finance benefits promised under current law, and modernize the Medicare benefit package.<sup>25</sup> Medicaid poses similar problems.

Thus, some combination of benefit reductions in Social Security and higher payments by Medicare beneficiaries appear inescapable. But so also do increased taxes to meet the costs of an expanding elderly and disabled population, to modernize Medicare, and to assure the elderly adequate assured basic income during retirement.

# Addressing the Near-Term Budget Deficit

Addressing the near-term budget deficit, *per se*, is less important than addressing the long-term fiscal gap. In the near-term, as long as economic growth is sluggish and capacity is under-utilized, budget deficits can help stimulate aggregate demand and return the nation to its full-employment growth path. In fact, having a near-term deficit may prove useful in helping policy-makers to focus on fiscal restraint that will pay off in the long-run.

Nevertheless, the near-term deficit may be of concern as well. If long-term fiscal prospects were rosy, current deficits would raise little concern. If private saving were high, the fact that government is now in deficit and absorbing some private saving to cover the gap would not prevent the nation from using the rest of private saving to augment its capital stock. Unfortunately, neither condition is satisfied. Long-term budget prospects are poor, and private saving is low, compared either with historic averages or international standards. Thus, reducing the deficit as soon as the current recession has ended is important because continued deficits will have a significant negative effect on the nation's economic growth. Policies that increase the

deficit now but reduce it in future years could be used to help stimulate the economy in the short-term and provide fiscal discipline in the long-term.

## Improving Budgetary Governance

The political hurdles that any changes to close the fiscal gap will face heighten the importance of budget rules that might facilitate responsible decision making by elected officials. Budget rules by themselves cannot produce fiscal discipline. Without a consensus that fiscal discipline is important, the rules will simply be ignored or evaded. But the rules under which proposals are evaluated can affect budget outcomes. In particular, we suggest that impending deficits and the political impediments to dealing responsibly with them justify placing larger procedural obstacles before spending increases or tax cuts than before spending cuts or tax increases. They also justify the preparation and dissemination of information that reveals the long-term fiscal gap.

Budget requirements. If the goal is to control the deficit, why not simply mandate declining deficits or balanced budgets? One answer is that no single budget total adequately describes the government's fiscal status. Any requirement for balance or declining deficits would necessitate focus on a single such measure, which would bias decisions in favor of actions that met the standards of that measure, even if those same decisions damaged budget prospects as indicated by other measures. More fundamentally, policy-makers have proven themselves capable of evading all deficit targets yet devised, including the Gramm-Rudman-Hollings requirements under which Congress operated in the 1980s. In addition, since deficits tend to emerge when the economy weakens, balanced budget rules tend to require tax increases or spending cuts at the wrong time in the business cycle. When unemployment is rising, the best policy is to let taxes fall and spending rise, through unemployment insurance, aid to the poor, and other so-called automatic stabilizers—programs under which spending increases when the economy weakens and without new legislation.

PayGo Rules. The Budget Enforcement Act of 1990 (BEA) introduced rules establishing caps on discretionary spending and pay-as-you-go (PayGo) rules governing changes in taxes and entitlement spending. Although these rules were quite inflexible and had serious shortcomings (for example, they encouraged trade-offs between changes in entitlements and taxes, but not between entitlements and discretionary spending), they contributed to fiscal discipline that led in the late 1990s to the emergence of substantial cash-flow surpluses. Unfortunately, when surpluses emerged in the late 1990s Congress began to waive or circumvent the rules. Some of the evasions were quite absurd. For example, some expenses associated with the 2000 decennial Census were classified as "emergency" spending, although the decennial Censuses have been fielded for more than 200 years and are mandated in the Constitution. The motivation for this ludicrous misclassification was transparent—emergency spending was excluded from the discretionary spending caps.

It should be emphasized, though, that these spending transgressions were far smaller than the size of the 2001 tax cut. That is, to the extent that the disappearance of the surplus was due to policy, it was the tax cut, not spending increases, that undermined fiscal discipline.

The PayGo and other budgetary rules matter more in the Senate than in the House of Representatives, because the House can waive rules by majority vote, but waivers require sixty votes in the Senate. The BEA PayGo rules and spending caps expired in September 2002; other Senate rules are scheduled to expire in the spring of 2003. Failure to make these or similar rules a permanent part of Congressional procedure would be a serious mistake.

<u>Uncertainty</u>. Budget rules should reflect the fact that projections are subject to error. Former Congressional Budget Office director Robert Reischauer suggested rules under which Congress could take formal cognizance of this uncertainty. Only a part of projected budget surpluses would be available for tax cuts or spending increases. The more distant the projection, the smaller the part of the projected surplus would be available. Such a rule would enable Congress to engage in long-term planning that uses a part of projected surpluses for spending

increases or tax cuts, but would reduce the likelihood that decisions made during a temporary period of excessive optimism would result in large deficits.<sup>26</sup>

The Budget Horizon. Because the House and Senate budget committees use projections of the Congressional Budget Office to develop funding allocations for various substantive and appropriation committees, deciding how far into the future to make such projections is quite significant. Projections over one or a few years create powerful biases to enact bills the cost of which is small in the near term but that balloons in years beyond the budget horizon. The longer the projection period, the smaller the bias. But as the projection period lengthens, uncertainties multiply. Choosing how far into the future to project expenditures and revenues is therefore a matter of judgment, and requires a balance between distorted legislative incentives and the imponderables of the future. We believe that the damage to responsible legislation from any shortening of the ten-year projection period would be significant. Even with the current horizon, Congress frequently delays implementation of spending increases or tax cuts to hold down the estimated ten-year cost of their actions. In the case of the 2001 tax cut, for example, delays in implementation and phaseouts held down the estimated reduction in revenues (measured as a fraction of GDP) over the ten year budget window. Shortening the budget horizon to fewer than ten years would exacerbate this problem.

Alternative Perspectives. For legislative purposes, Congress must rely on a single set of projections. But projections using alternative methods can enrich the understanding of Congress and the public about budget prospects. In table 2 we illustrated an alternative projection that applies different assumptions from those in official projections and that extended into the distant future. Two additional kinds of projections could be useful as supplemental information.

For many purposes, accrual accounting is more informative than cash-flow accounting. Under accrual accounting, one values accrued assets and liabilities and computes the present discounted value of future spending and revenues under certain programs—namely, those that entail long-term commitments—rather than the cash flow over a limited period or present

discounted value of all government activities, as in fiscal gap calculations. Accrual accounting generally affects only programs with multi-year spending or revenue provisions that are based on program eligibility—such as Social Security and Medicare—rather than discretionary appropriations. Accrual accounting has already been implemented for certain isolated government programs, including the Federal Employees Retirement System pension for federal employees, and (as of 2003) military retiree health benefits. The Administration has proposed that it be extended to all federal employees' pension and health care expenses.<sup>27</sup> The General Accounting Office recommends adoption of accrual budgeting for insurance programs, pension and retiree health programs, and environmental cleanup costs.<sup>28</sup> Other countries have employed accrual accounting to varying degrees.<sup>29</sup> The main disadvantage of accrual accounting is that future costs are less certain than current cash flow. Nevertheless, accrual accounting is appealing because in some senses it presents a truer picture of government's assets and obligations than does cash-flow accounting over a short horizon.<sup>30</sup> Although full accrual accounting may require too many assumptions to be appropriate for the budget itself, publications of studies based on accrual accounting would provide legislators and the public with useful information.

Generational accounting constitutes yet another way to measure the government's fiscal position.<sup>31</sup> Generational accounting attempts to measure how the net burden of government is distributed across birth cohorts. Generational accounting allocates taxes and transfer payments under current policy to members of different generations, and does the same for changes in taxes that may be needed to close the fiscal gap. The initial assignment of tax liabilities and the resulting generational accounts indicate how large the net present value of tax liabilities is for members of each generation.<sup>32</sup> The allocation of additional burdens needed to close the long-run fiscal gap indicates how different generations will be affected by the policy change.<sup>33</sup> Generational accounting provides insight into how different policies will affect people of different ages; with the advantage of more information, though, comes the need for more assumptions and data. As with accrual accounting, generational accounting estimates provide useful supplements to the cash-flow budget figures.

#### Conclusion

The United States faces significant fiscal challenges. Official projections celebrate a projected budget surplus exceeding \$1 trillion over the next decade. Under realistic assumptions, however, the budget will run deficits of several trillion dollars in the next 10 years, even without major new initiatives, and much larger deficits over the longer term as population aging and rising medical technology drive up pension and health care outlays. The focus on the ten-year window and other current budget rules tends to obscure our long-term challenge. Preparing for the fiscal challenges ahead is America's responsibility now. Failure to make the difficult and painful choices necessary to fulfill that responsibility will imply a long-term weakening of the economy and slowing growth of living standards well into the future.

#### Box 1: Keeping score

Unified budget. A comprehensive display of the federal government budget, compiled with few exceptions on a cash-flow basis. The unified budget includes all regular federal programs and trust funds (such as those for Social Security and Medicare). The balance on the unified budget equals the sum of the "on-budget" and "off-budget" balances. In Fiscal Year 2002, the unified budget ran a deficit of \$159 billion.

On-budget budget The on-budget balance reports revenues land expenditures on all operations of government, other than of the Social Security Trust Funds and the Postal Service. It is equal to the unified budget balance minus the off-budget balance. The on-budget accounts ran a deficit in Fiscal Year 2002 of \$318 billion.

Off-budget budget The off-budget accounts include only the operations of the Social Security Trust Funds and the Postal Service. It is currently in surplus—by \$160 billion in Fiscal Year 2002—but large and growing deficits are forecast after the baby boomers enter retirement.

Cyclically-adjusted budget. The cyclically-adjusted budget measures what the budget balance would be if the economy were fully using available capacity; it removes the effect of the business cycle on the budget. CBO estimates a cyclically adjusted deficit of \$117 billion in Fiscal Year 2002, about \$40 billion lower than the actual deficit of \$159 billion because of the recession during 2002.

Debt held by the public. Debt held by the public the public reflects the government's borrowing from the private sector (i.e., from banks, pension plans, private bondholders, foreign investors, and others). Debt held by the public at the end of Fiscal Year 2002 amounted to \$3.5 trillion. (Technically, this figure includes about \$600 billion in debt held by the Federal Reserve Banks; many economists subtract this portion from the debt held by the public figure.)

## Auerbach, Gale, Orszag, Potter

Gross Federal debt. Gross Federal debt is equal to debt held by the public plus debt held by various government trust funds (including, for example, the Social Security Trust Funds). It amounted to \$6.2 trillion at the end of Fiscal Year 2002.

Primary deficit/surplus. The primary budget excludes interest payments on the debt held by the public. It is equal to the unified budget balance excluding such interest payments. In 2002, interest payments on the debt held by the public were \$179 billion. The primary budget was therefore in surplus to the tune of \$20 billion—the unified budget deficit of \$159 billion, less interest payments.

Mandatory spending Mandatory spending is determined by formula or by statute, rather than by annual appropriations. For example, Social Security benefit payments are determined by a benefit formula specified by law. In 2002, mandatory spending was \$1.1 trillion.

Discretionary spending Discretionary spending is governed by thirteen annual appropriations bills. It includes items such as the operating budgets for federal departments, and accounts for slightly more than one-third of annual spending. Discretionary spending in 2002 was about \$735 billion.

Budget baseline. A budget baseline provides a projection of future spending and revenues if policy is unchanged. The effects of policy changes can be then be evaluated by comparing the outcome inclusive of the policy change to the baseline (which excludes the policy change).

Gramm-Rudman-Hollings. In 1985, Congress passed the Balanced Budget and Emergency Deficit Control Act, usually referred to as Gramm-Rudman-Hollings (sometimes as Gramm-Rudman) after the bill's principal sponsors, Phil Gramm (Republican of Texas), Warren Rudman (Republican of New Hampshire) and Ernest Hollings (Democrat of South Carolina). It set deficit targets and required "sequestration" (that is, a formula reduction in spending) if the targets were not met. The Supreme Court declared the original version of the bill to be unconstitutional, and Congress passed a revised version.

Budget Enforcement Act. The Budget Enforcement Act of 1990 set caps on discretionary spending, which could not be exceeded except in "emergencies," and defined pay-as-you-go rules for mandatory programs and taxes. The pay-as-you-go rules were intended to ensure that expansions in mandatory spending programs or reductions in taxes were balanced by cut-backs in other mandatory programs or increases in other taxes.

EGTRRA. The Economic Growth and Tax Relief Reconciliation Act of 2001 phased in a variety of income and estate tax reductions between 2001 and 2010. All of the changes officially sunset in 2010 or before, meaning that the tax code in 2011 would revert to its form prior to passage of the legislation in 2001 if action is not taken before then to modify the sunset in some way.

Box 2: Expiring provisions in the tax law

Under current law, all of the provisions of EGTRRA terminate at the end of 2010 if they have not already been terminated by then. As of the end of 2010 the tax code reverts to what it would have been had EGTRRA never existed. Perhaps the oddest of these rules concerns the estate tax. EGTRRA repeals it at the start of 2010 and restores it at the end of 2010. Forecasters, who try to understand what "current policy" is and to forecast its budgetary implications are hard pressed to carry out their instructions under these circumstances. In the case of the estate tax, although CBO must follow current law, virtually no one believes that current law will be implemented in full. More generally, it is unlikely that the tax provisions will sunset completely as stipulated by EGTRRA. In 2002, the Bush Administration clearly stated its desire that the tax cuts be made permanent. After the 2002 elections, few doubted that many elements of EGTRRA would be made permanent. <sup>34</sup> But how much of it would become permanent, or when, remained obscure. Our projections assume that all tax cut provisions of EGTRRA will be made permanent.<sup>35</sup>

We also assume that the traditional package of expiring tax provisions will be extended.<sup>36</sup> In the past, these provisions have been temporarily extended each time the expiration dates approached. Indeed, CBO calls the extensions a "matter of course."<sup>37</sup>

How projections should handle the 2002 stimulus package—whose most important tax provision allows partial expensing for business investments—is less clear. Measures to combat recession are customarily temporary. For that reason, assuming that it will expire seems most reasonable. On the other hand, the package expires just before the 2004 election, which will create political pressure to extend it. Proponents of the bill wanted the provisions of the stimulus package permanent in the first place. For simplicity and consistency with the other expiring provisions, we treat the stimulus package as a permanent tax cut. Altering this assumption would not materially affect our conclusions.

#### Box 3: The Alternative Minimum Tax

In 1969, public outrage following a Treasury report that 155 high-income tax filers had paid no income tax goaded Congress to enact a "minimum tax." Today's version, introduced in 1978, parallels the income tax but defines income differently, allows different deductions, and applies flatter tax rates. Taxpayers must pay the alternative minimum tax when it exceeds their regular income tax.

About 1 million households paid the AMT in 1999. By 2010, an estimated 36-million taxpayers will face it, including virtually all upper-middle-class families with two or more children. The AMT raises little revenue today. By 2008, however, it would cost more to repeal the AMT than the regular income tax.

The projected expansion can be tied directly to the last two major tax cuts. The regular income tax was indexed for inflation beginning in 1985, but the AMT was not. As a result, AMT liabilities rise every year even if income just keeps up with inflation. The 2001 tax cut reduces regular income-tax liabilities over the next decade. With AMT liability rising and regular taxes falling, ever more taxpayers find that AMT liability exceeds ordinary income taxes.

These trends are alarming because the AMT is bad tax policy. It is notoriously complex,. Most taxpayers who are required to plod through the forms don't end up owing any additional tax. Those who do pay are often subjected to higher marginal tax rates than under the regular tax.

The complexity is also increasingly pointless. The AMT was originally intended to deter tax-shelters, but now raises less than 10 percent of its revenue from its anti-shelter provisions. Instead, the tax increasingly burdens married filers earning under \$100,000 with several children who are subject to high state income taxes.<sup>38</sup>

Box 4: Budget deficits, national income, and interest rates

The link between the government's budget and economic performance contains several steps. First, national saving is the sum of private saving (which occurs when the private sector spends less than its after-tax income) and public saving (which occurs when the public sector runs budget surpluses). Second, national saving is used to finance either domestic investment or net foreign investment--the difference between Americans' investments overseas less foreigners' investments here. That is, national saving either finances the accumulation by Americans of assets at home (domestic investment) or it finances the accumulation by Americans of assets abroad (net foreign investment). Either way, the accumulation of assets due to higher national saving means that the capital stock owned by Americans is increased. Third, the returns to that additional capital -- whether domestic or foreign -- raise the income of Americans in the future.

Given these links, it is staightforward to see why sustained budget deficits reduce future national income. The empirical evidence suggests that private saving only offsets about 20 to 50 percent of declines in public saving due to increased deficits. (See Bernheim 1989, CBO 1998c, Elmendorf and Liebman (2000), Gale and Potter 2002.) As a result, increases in budget deficits (declines in public saving) reduce national saving. The decline in national saving must reduce the sum of domestic and net foreign investment and hence reduce future national income.

A back-of-the-envelope calculation may help to illustrate the sizable effects of dissipating future budget surpluses. The projected 10-year budget surplus for 2002-2011 fell by \$5.3 trillion between January 2001 and August 2002 according to Congressional Budget Office projections. That increase reflects the cumulative deterioration in government saving between 2002 and 2011 under the official forecasts. If 25 percent of the deterioration in government saving is offset by increased private saving, the budget shift reduces the stock of net assets owned by Americans at the end of 2011 by about \$4 trillion. Assuming conservatively that capital earns a return of 6 percent on the margin, the deterioration in the budget balance over the next 10 years reduces real Gross National Product (which includes income received by Americans on their foreign investments) in 2012 by \$240 billion or by about 1.5 percent. This

translates into about \$1,500 *per year* for each household in the United States. (See Gale and Orszag 2002 for details of this calculation.)

When budget deficits increase and national saving falls, a related question is how national saving and investment are brought back into equality. One possible channel is that interest rates rise. At a given interest rate, a reduction in national saving relative to current domestic and net foreign investment implies a shortage of funds to finance such investments. That imbalance puts upward pressure on interest rates as firms compete for the limited pool of funds to finance their investment projects. The increase in interest rates then serves to reduce domestic and net foreign investment and bring national saving and investment back into equality. A second possibility is that the entire decline in national saving is financed by increased capital inflows from abroad. These capital inflows would dampen and perhaps eliminate the increase in domestic interest rates.

Although the potential effect of deficits on interest rates has received substantial attention in the policy debate, the reduction in national saving entails an economic cost regardless of whether interest rates rise. In particular, the capital inflows represent a reduction in net foreign investment and thus a reduction in future national income. The equality between national saving and domestic plus net foreign investment holds even if interest rates are unaffected, so that a reduction in national saving must therefore reduce the capital owned by Americans and future national income

Table 1
CBO Baseline and Adjusted Budget Projections, 2002-2012

	Billions of dollars
CBO Unified Budget (+ Surplus, - Deficit)	+ 1,015
Adjustment	
For expiring tax provisions <sup>1</sup>	- 903
For AMT <sup>1</sup>	- 732
To hold discretionary spending a constant fraction of GDP <sup>1</sup>	-1,341
For Social Security	-2,528
For Medicare	- 400
For government retirement funds	- 497
Adjusted budget deficit	-5,385

<sup>&</sup>lt;sup>1</sup> Includes effects on debt service costs

Source: See appendix table 1

Table 2

## The Long-term Fiscal Gap

<u>Period</u>	CBO Assumptions <sup>1</sup>	Adjusted Budget <sup>2</sup>
2002-2075	1.4	percent of GDP 4.8
Permanent	4.1	7.8

- The CBO spending baseline holds discretionary spending authority constant in real terms from 2003 to 2012 at the level prevailing in 2002. The CBO revenue baseline assumes current law: EGTRRA and the stimulus bill sunset as legislated, other temporary tax provisions expire as scheduled, and no AMT adjustments are made.
- The adjusted spending baseline holds discretionary spending outlays constant as a share of GDP from 2003 to 2012 at the level prevailing in 2002. The adjusted revenue baseline assumes that the phase-out and sunset provisions of EGTRRA are repealed, other temporary tax provisions are made permanent, and the share of taxpayers facing the AMT is held constant at 3 percent, the level prevailing in 2002.

#### Endnotes

<sup>&</sup>lt;sup>1</sup> Auerbach is the Robert D. Burch Professor of Economics and Law and Director of the Burch Center for Tax Policy and Public Finance at the University of California, and a research associate of the National Bureau of Economic Research. Gale is the Arjay and Frances Fearing Miller Chair in Federal Economic Policy at the Brookings Institution. Orszag is the Joseph A. Pechman Senior Fellow at Brookings. Potter is the Musgrave Fellow in the graduate economics program at the University of Michigan. The authors thank Henry Aaron for extensive and extremely helpful comments, Manijeh Azmoodeh and David Gunter for outstanding research assistance; Eric Engen, Joel Friedman, Robert Greenstein, and especially Richard Kogan for helpful discussions and comments; and Sandy Davis, Ben Page, Wendell Primus, and Jina Yoon for providing data. Any errors and opinions are those of the authors and should not be attributed to the officers, staff or trustees of the University of California, the National Bureau of Economic Research, the Brookings Institution, or the University of Michigan.

<sup>&</sup>lt;sup>2</sup> Theoretically, the government could also sell some of its assets to finance an imbalance between revenue and expenditure. (In the federal budget, asset sales are misleadingly classified as spending reductions rather than as a source of financing for a deficit, so they reduce the measured deficit rather than provide a means of financing it.)

<sup>&</sup>lt;sup>3</sup> It can also have an effect on the economy's short-run performance, if increased government borrowing raises interest rates, and hence make investment more costly. See Gale and Orszag (2002).

<sup>&</sup>lt;sup>4</sup> Under the Federal Credit Reform Act of 1990, only the subsidy cost of a government loan or loan guarantee is recorded in the unified budget. Interest on the public debt is also recorded on an accrual basis. For example, implicit interest on a zero-coupon bond is recorded as an outlay while it accrues. Other minor divergences from pure cash-flow accounting also exist.

<sup>&</sup>lt;sup>5</sup> Other actions of the government, such as regulations, can affect the private economy without affecting federal spending or revenues.

<sup>&</sup>lt;sup>6</sup> At the same time, Congress also designated the U.S. Postal Service as an off-budget entity. The Postal Service's budgetary impact, though, is a tiny fraction of social security's.

<sup>&</sup>lt;sup>7</sup> All years reported are fiscal years. Fiscal year x ends on September 30th of calendar year x.

<sup>&</sup>lt;sup>8</sup> CBO 2002a, p. xiii.

- <sup>9</sup> In recent years, CBO has presented sensitivity analysis with a variety of alternative discretionary spending paths. Theoretically, one would prefer the measure that best reflects the cost of maintaining a given level of government services. The problem arises because some types of discretionary spending (like FBI staffing) likely require real increases that at least keep pace with population growth in order to maintain a given level of services, whereas others (like administrative expenses for government departments) may be largely fixed in real terms and therefore not need to keep pace with population growth. Still other types of spending may require a constant share of output in order to maintain a constant level of services. In any case, both casual inspection of the fixed cost component of various categories of spending and historical analysis of spending trends suggest that real discretionary spending is unlikely to decline sharply on a per capita basis
- <sup>10</sup> Presidential candidate, George W. Bush, made the same point, arguing that an "honest comparison" of spending growth should take inflation and population growth into account (Slater 1999, Calmes 1999). The results would not change significantly if we assumed that real *per capita* discretionary spending were held constant.
- <sup>11</sup> The procedure used for estimating the cost of the AMT changes is described in Auerbach, Gale and Orszag (2002).
- <sup>12</sup> This economic logic may help explain the significant, bipartisan political support for the notion that retirement trust funds ought to be kept separate from the rest of the budget. Both Houses of Congress voted overwhelmingly in 2000 to support measures that protected the Medicare Hospital Insurance trust fund from being used to finance other programs or tax cuts (Mohr 2001). A recent legislative proposal would provide similar protection to military pensions (U. S. House of Representatives 2001). Almost all states already separate pension reserves from their operating budgets.
- <sup>13</sup> If underlying rates of growth of spending and taxes are stable, any small increase in the ratio of debt to GDP would lead to further increases, with attendant jumps in interest costs, leading to an explosive increase in the debt-GDP ratio. See Auerbach (1994, 1997), Auerbach and Gale (1999, 2000, 2001), and Congressional Budget Office (2000).
- <sup>14</sup> In fact, payroll taxes are projected to decline and income taxes to increase as a fraction of GDP. Payroll taxes are levied on cash wages; because fringe benefits, which are not subject to payroll tax, are expected to increase as a share of GDP, while total labor compensation is projected to be roughly constant, the share of GDP taking the form of taxable wages is projected to fall. Income taxes are projected to claim an ever larger share of GDP, as bracket widths, personal exemptions, and the standard deduction are not indexed for increases in real incomes.

- <sup>15</sup> This figure is lower than the comparable estimate presented in Auerbach, Gale and Orszag (2002). Three factors explain the change. Our previous estimate (and all other long-term estimates in that paper) was too high by nearly 2 percent of GDP as a result of our misinterpretation of unpublished projections obtained from CBO. In addition, the short-term outlook has worsened in the intervening months, while the long-term projections for entitlement spending have improved somewhat, roughly offsetting each other in effect over the 75-year horizon.
- <sup>16</sup> See, for example, Auerbach (1999), CBO (2002c), and Penner (2001). Although the *economic* assumptions used in the CBO budget projections may be unbiased predictions of future events, the *policy* assumptions are not. Indeed, the policies assumed in the baseline forecasts appear to be diverging ever more dramatically from more accurate reflections of "current" policies. The official baseline seems to be a particularly biased measure of fiscal status under current conditions because of the sunsets embodied in EGTRRA and the stimulus package; the looming AMT explosion; uncertainty about the course of discretionary spending (including defense and homeland security spending); and the large role played by retirement trust funds in the budget.

<sup>&</sup>lt;sup>17</sup> Auerbach and Gale (2001).

<sup>&</sup>lt;sup>18</sup> Informed Budgeteer (2002), Sullivan (2002).

<sup>&</sup>lt;sup>19</sup> Aaron and Harris 2002.

<sup>&</sup>lt;sup>20</sup> CBO 2001b, Lee and Edwards 2001, Shoven 2002.

<sup>&</sup>lt;sup>21</sup> Auerbach and Hassett (2001, 2002) address the optimal policy response to uncertainty in long-term forecasts.

<sup>&</sup>lt;sup>22</sup> An expiration or freeze would impose the costs of the government's fiscal imbalance primarily on high-income households, as the tax cuts scheduled to take place in future years are even more heavily skewed in favor of higher-income households than was the tax cut as a whole (Gale and Potter 2002).

<sup>&</sup>lt;sup>23</sup> See Board of Trustees, Federal Old Age and Survivors Insurance and Disability Insurance Trust Funds (2002, table VI.E5, p. 150) and Kogan, Greenstein and Orszag (2002). Note that the actuarial imbalance figure is lower than the present value of the additional future cash flow required to finance scheduled benefits because of the current value of the Trust Fund.

<sup>&</sup>lt;sup>24</sup> Technical differences in the manner in which the fiscal gap and the actuarial imbalance within Social Security are computed mean that the figures in the text are necessarily approximations.

<sup>&</sup>lt;sup>25</sup> [cite to NASI study panel]

<sup>&</sup>lt;sup>26</sup> A related approach to uncertainty involves "trigger rules," which would cancel revenue reductions or spending increases if projected surpluses failed to materialize. Kogan (2001) describes several reasons why triggers may work poorly. If they are tied to surplus or deficit projections, they would create incentives for rosy forecasts. If the triggers instead depend on actual budget results, they would create incentives for timing tricks and budget gimmicks to avoid the triggers, and hence would require additional budget rules. Moreover, policy changes induced by the triggers would be pro-cyclical: in a recession, the trigger would force spending cuts or tax increases, exactly the wrong response at the wrong time. Also, triggers attempt to determine whether future tax cuts are affordable by looking at current or previous years'--rather than projected--surpluses. Finally, triggers may simply be politically untenable: they would require Congress to cancel already-passed tax cuts or spending programs.

<sup>&</sup>lt;sup>27</sup> CBO, "The President's Proposal To Accrue Retirement Costs For Federal Employees," June 2002.

<sup>&</sup>lt;sup>28</sup> GAO (2001).

<sup>&</sup>lt;sup>29</sup> Australia, New Zealand, and the United Kingdom have implemented full accrual accounting systems. Germany supplements its cash flow accounts with accrual accounting information and Korea, the Netherlands, Sweden, and Switzerland are moving toward full accrual systems (OECD 2002).

<sup>&</sup>lt;sup>30</sup> Capital budgeting is often mentioned as alternative reform. Under capital budgeting, borrowing finances capital purchases and the budget records only the annual usage cost of capital investment. A transition to capital budgeting, however, would face several problems. The definition of capital is ambiguous, would be subject to abuse, and may turn out to encourage spending rather than discourage it. Both the President's Commission on Budget Concepts 1967) and the President's Commission to Study Capital Budgeting (1999) recommend against adopting capital budgets that either finance capital by borrowing or take depreciation into account when budgeting.

<sup>&</sup>lt;sup>31</sup> The original formulation of generational accounting is in Auerbach, Gokhale, and Kotlikoff (1991).

<sup>&</sup>lt;sup>32</sup> In practice, generational accounts reflect only taxes paid less transfers received. With the occasional exception of government expenditures on education, the accounts presented in past research typically have not imputed to particular generations the value of the government's purchases of goods and services. Therefore, the accounts do not show the full net benefit or burden that any generation receives from government policy

as a whole, although they can show a generation's net benefit or burden from a particular policy change that affects only taxes and transfers. Thus generational accounting tells us which generations will pay for government spending rather than telling us which generations will benefit from that spending.

- Generational accounting, traditional deficit accounting, and estimates of the long-run fiscal gap all exclude the effects of induced behavioral effects or macroeconomic responses of policy changes. For further discussion, see Fehr and Kotlikoff (1999), who use the Auerbach-Kotlikoff (1987) simulation model to assess the impact of general equilibrium effects on generational accounts. They find that the accounts typically provide a good approximation of the full general equilibrium impact. Also see Börstinghaus and Hirte (2001).
- <sup>34</sup> President Bush called for making the tax cuts permanent in his January 2002 State of the Union address (Bush 2002), and the Administration's 2003 Budget includes such a proposal. But even before the tax cut was signed, Treasury Secretary Paul O'Neill indicated that "All these things are going to become permanent. They'll all be fixed." (USA Today 2001). Lindsey (2002) refers to the tax cuts as "permanent."
- <sup>35</sup> Kiefer et al (2002) make a similar assumption. CBO (2001) makes the same assumption when it analyzes the economic effects of the tax cut, even though it cannot make that assumption when analyzing the budget projections themselves.

<sup>&</sup>lt;sup>36</sup> These include, for example, the research and experimentation tax credit, which is due to expire on June 30, 2004, the Work Opportunity Tax Credit, the Welfare-to-Work Tax Credit, and a variety of other items.

<sup>&</sup>lt;sup>37</sup> CBO 2002a, p. 63.

<sup>&</sup>lt;sup>38</sup> See Burman et al 2002.

#### References

Aaron, Henry J. and William B. Schwartz. 2002. <u>Creating Methuselah: Molecular Medicine and the Problems of an Aging Society</u>. Washington, D.C.: Brookings Institution Press.

Auerbach, Alan J. 1994. "The U.S. Fiscal Problem: Where We Are, How We Got Here, and Where We're Going." In: Stanley Fischer and Julio Rotemberg, eds. NBER Macroeconomics Annual. Cambridge, MA: National Bureau of Economic Research,.

Auerbach, Alan J. September 1997. "Quantifying the Current U.S. Fiscal Imbalance." <u>National Tax Journal</u> 50(3): 387-98.

Auerbach, Alan J. December 1999. "On the Performance and Use of Government Revenue Forecasts." <u>National Tax Journal</u> 52(4): 767-782.

Auerbach, Alan J. and Laurence J. Kotlikoff. 1987. <u>Dynamic Fiscal Policy.</u> Cambridge, England: Cambridge University Press.

Auerbach, Alan J., Jagadeesh Gokhale, and Laurence J. Kotlikoff. 1991. "Generational Accounts: A Meaningful Alternative to Deficit Accounting." In: David Bradford, ed. <u>Tax Policy and the Economy.</u> Cambridge, MA: National Bureau of Economic Research: 55-110.

Auerbach, Alan J., Laurence Kotlikoff, and Willi Leibfritz, eds. 1999. <u>Generational Accounting Around the World.</u> Chicago: University of Chicago Press.

Auerbach, Alan J. and William G. Gale. March 1999. "Does the Budget Surplus Justify a Large-Scale Tax Cut?" <u>Tax Notes</u> 82: 1827-50.

Auerbach, Alan J. and William G. Gale. September 2000. "Perspectives on the Budget Surplus." National Tax Journal 53(3): 459-73.

Auerbach, Alan J. and William G. Gale. March 2001. "Tax Cuts and the Budget." <u>Tax Notes</u> 90: 1869-82.

Auerbach, Alan J. and Kevin A. Hassett. 2001. "Uncertainty and Design of Long-Run Fiscal Policy." In: Alan J. Auerbach and Ronald D. Lee, eds. <u>Demographic Change and Fiscal Policy</u>. Cambridge, UK: Cambridge University Press. 73-100.

Auerbach, Alan J. and Kevin A. Hassett. 2002. "Optimal Long-Run Fiscal Policy: Constraints, Preferences and the Resolution of Uncertainty." NBER Working Paper 9132.

Board of Trustees, Federal Hospital Insurance Trust Fund. 2001. "The 2001 Annual Report of the Board of Trustees of the Federal Hospital Insurance Trust Fund."

Board of Trustees, Federal Old Age and Survivors Insurance and Disability Insurance Trust Funds. 2001. "The 2001 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds."

Board of Trustees, Federal Old Age and Survivors Insurance and Disability Insurance Trust Funds. 2001. "The 2002. Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds."

Börstinghaus, Volker, and Georg Hirte. 2001. "Generational Accounting Versus Computable General Equilibrium," <u>FinanzArchiv</u> 58(3): 227-43.

Burman, Leonard E., William G. Gale, Jeffrey Rohaly, and Benjamin H. Harris. September 2002. "The Individual AMT: Problems and Potential Solutions." Urban-Brookings Tax Policy Center Discussion Paper No. 5. Forthcoming, *National Tax Journal*.

Bush, George W. January 29, 2002. "The President's State of the Union Address." Remarks at the United States Capital. Washington, DC.

Calmes, Jackie. November 5, 1999. "In Debate on Spending, Forbes vs. Bush Resemble Bush vs. Richards, and Both Sides May Be Right." New York Times: A20.

Canada Department of Finance. November 2, 1999. "The Economic and Fiscal Update: Translating Better Finances Into Better Lives."

Congressional Budget Office. November 1995. "Who Pays and When? An Assessment of Generational Accounting."

Congressional Budget Office. October 2000. "The Long-Term Budget Outlook."

Congressional Budget Office. August 2001a. "The Budget and Economic Outlook: An Update."

Congressional Budget Office. August 2001b. "The Budget and Economic Outlook: An Update."

Congressional Budget Office. January 15, 2002a. "The Budget and Economic Outlook: Fiscal Years 2003-2012."

Congressional Budget Office. August 2002b. "The Budget and Economic Outlook: An Update."

Congressional Budget Office, July 2002c. "<u>A 125-Year Picture of the Federal Government's Share of the Economy, 1950 to 2075,</u>" Long-Range Fiscal Policy Brief.

Diamond, Peter A. 1996. "Generational Accounts and Generational Balance: An Assessment," National Tax Journal 49(4): 597-607.

Elmendorf, Douglas W., Jeffrey B. Liebman, and David W. Wilcox. 2002. "Fiscal Policy and Social Security Policy During the 1990s." In: Jeffrey A. Frankel and Peter R. Orszag, eds. American Economic Policy in the 1990s. Cambridge, Massachusetts: MIT Press. 61-119.

Fehr, Hans, and Laurence J. Kotlikoff. 1999. "Generational Accounting in General Equilibrium." In: Auerbach, Alan *et al.*, eds. <u>Generational Accounting Around the World</u>. Chicago: University of Chicago Press, 43-71.

Gale, William G. and Samara R. Potter. March 2002. "An Economic Evaluation of the Economic Growth and Tax Relief Reconciliation Act of 2001." National Tax Journal 55(1).

General Accounting Office. June 2001. "Budget Issues: Budget Enforcement Compliance Report." GAO-01-777.

Gokhale, Jagadeesh, Laurence J. Kotlikoff, and John Sabelhaus. 1996. "Understanding the Postwar Decline in U.S. Saving: A Cohort Analysis." <u>Brookings Papers on Economic Activity.</u> 1: 315-90.

International Monetary Fund. March 2002. "Canada: 2002 Article IV Consultation—Staff Report; Staff Statement; and Public Information Notice on the Executive Board Discussion." IMF Country Report No. 02/50.

Kiefer, Donald, Robert Carroll, Janet Holtzblatt, Allen Lerman, Janet McCubbin, David Richardson, and Jerry Tempalski. March 2002. "The Economic Growth and Tax Relief Reconciliation Act of 2001: Overview and Assessment of Effects on Taxpayers." <u>National Tax</u> Journal 55(1).

Kogan, Richard. March 6, 2001. "How to Avoid Over-Committing the Available Surplus: Would a Tax-Cut "Trigger" Be Effective Or Is There a Better Way?" Center on Budget and Policy Priorities.

Kogan, Richard, Robert Greenstein, and Peter Orszag. "Social Security and the Tax Cut." Center for Budget and Policy Priorities. April 9, 2002.

Lee, Ronald and Ryan Edwards. 2001. "The Fiscal Impact of Population Aging in the U.S.: Assessing the Uncertainties." University of California-Berkeley. Mimeo.

Lindsey, Lawrence B. January 18, 2002. "Why We Must Keep the Tax Cut." <u>Washington Post</u>: A25.

Mohr, Patti. February 19, 2001. "House Passes Social Security and Medicare Lockbox Legislation." *Tax Notes*: 981-83.

Organisation for Economic Co-Operation and Development. April 9, 2002. "A Brief Comparison of the Budgeting Systems in the G7 Countries." Available at: http://www.oecd.org/pdf/M00028000/M00028250.pdf

Penner, Rudolph G. 2001. "Errors in Budget Forecasting." Washington, DC: The Urban Institute.

President's Commission on Budget Concepts. October 1967. "Report of the President's Commission on Budget Concepts." Washington, D.C.

President's Commission to Study Capital Budgeting. February 1999. "Report of the President's Commission to Study Capital Budgeting." Washington, D.C.

Reischauer, Robert D. January 29, 2002. "Framing the Budget Debate for the Future." Testimony before the U.S. Senate Budget Committee. Washington, D.C.

Schick, Allen. 2000. "The Federal Budget: Politics, Policy, Process." Washington, DC: Brookings Institution.

Shoven, John B. 2002. "The Impact of Major Life Expectancy Improvements on the Financing of Social Security, Medicare and Medicaid." In: Aaron, Henry J. and William B. Schwartz, eds. Creating Methuselah: Molecular Medicine and the Problems of an Aging Society. Washington, D.C.: Brookings Institution Press.

Slater, Wayne. October 28, 1999. "Bush Defends Fiscal Record, Scolds Forbes: His Ads on Spending Challenged." <u>Dallas Morning News</u>: 14A.

Sullivan, Martin A. September 2, 2002. "The Federal Budget: Is it Going to Hell?" <u>Tax Notes</u> 16(2): 1303-7.

"Tax-Cut Gimmicks Portend Return to Deficit Spending." June 6, 2001. <u>USA Today</u>: 14A.

U.S. House of Representatives. January 30, 2001. 107<sup>th</sup> Congress, 1<sup>st</sup> Session, H. RES. 23.

U.S. Senate. Committee on the Budget, Minority Group. March 4, 2002. "The Long-Term Budget Outlook." <u>Informed Budgeteer</u>. 107<sup>th</sup> Congress, 2<sup>nd</sup> Session No. 4.