

New Estimates of the Budget Outlook: Plus Ça Change, Plus C'est la Môme Chose

Alan J. Auerbach, William G. Gale, and Peter R. Orszag¹

January 31, 2006

I. Introduction

Despite substantial attention given to fiscal policy concerns in recent years, the federal government's fiscal status has continued to deteriorate, with the enactment of tax cuts, a massive new Medicare entitlement, increased spending on defense and homeland security, and related economic developments. This paper provides new estimates of the nation's fiscal status over both the 10-year and long-term horizon, based on the most recent (January 2006) Congressional Budget Office official budget figures (CBO 2006). Our general conclusions are not surprising: under plausible assumptions, the nation faces significant short- and medium-term deficits and massive long-term shortfalls. Dealing with these problems will require spending cuts or tax increases that are far beyond the scale of anything currently considered politically palatable. Our specific conclusions include the following:

- CBO now projects a 10-year baseline deficit of \$831 billion in the unified budget for fiscal years 2007 to 2016. The budget outside of Social Security faces a baseline deficit of \$3.4 trillion.
- Over the first five years of the Bush Administration, the 10-year fiscal outlook deteriorated by \$8.3 trillion. In January 2001, the unified baseline for 2002 to 2011 projected a surplus of \$5.6 trillion. The baseline for the same period now projects a *deficit* of \$2.7 trillion.
- The budget projections have deteriorated since the beginning of 2005. On a comparable basis, the baseline 10-year unified deficit for 2006 to 2015 has risen by almost \$400 billion since January 2005.
- About 58 percent of the deterioration in the official baseline figures since 2001 is due to lower revenues, and 42 percent is due to higher spending. Specifically, the

¹ Alan J. Auerbach is 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, Berkeley, and a research associate at the National Bureau of Economic Research. William G. Gale is the Arjay and Frances Fearing Miller Chair in Federal Economic Policy at the Brookings Institution and Co-Director of the Urban-Brookings Tax Policy Center. Peter R. Orszag is the Joseph A. Pechman Senior Fellow at Brookings and Co-Director of the Urban-Brookings Tax Policy Center. The authors thank Seth Stephens-Davidowitz for outstanding research assistance. All opinions and any mistakes are the authors' and should not be attributed to the staff, officers, or trustees of any of the institutions with which they are affiliated.

decline can be attributed to legislated tax cuts (29 percent), other declines in revenue (28 percent), legislated spending increases (36 percent) and other changes in spending (6 percent). Declines in revenue have also accounted for most of the deterioration in actual budget outcomes (as opposed to 10-year projections) between 2000 and 2006. Tax revenues as a share of GDP have fallen dramatically since 2000, and are low relative to their average value between 1960 and 2000. Spending as a share of GDP has risen somewhat since 2000, but nonetheless remains at or below its average level between 1960 and 2000.

- As is now widely recognized, the baseline projections use mechanical assumptions that may not reflect the best representation of current policy. Among other things, the baseline assumes that (1) almost all expiring tax provisions will be allowed to expire, (2) the alternative minimum tax (AMT) will be allowed to grow explosively, (3) no additional funding requests will be necessary to conduct the wars in Iraq and Afghanistan and (4) real discretionary spending (including defense) will be held constant in real terms.
- If almost all of the expiring tax provisions are extended, the AMT is held in check (as described below), and real discretionary spending keeps pace with population growth, the 10-year unified budget deficit will be \$4.8 trillion (2.8 percent of GDP), with deficits of 2.4 percent of GDP or more in every year. The differences between the CBO baseline and this adjusted unified budget projection grow over time. By 2016, the annual difference is \$784 billion (3.8 percent of GDP).
- The unified budget figures include large cash-flow surpluses accruing in trust funds for Social Security, Medicare, and government pensions over the next 10 years. In the longer term, Social Security and Medicare face significant deficits. Outside of the retirement trust funds, the adjusted 10-year budget faces a deficit of \$7.8 trillion over the next decade (4.6 percent of GDP). Thus, a simple way to summarize the fiscal status of the government is to note that the retirement trust funds face substantial long-term deficits, and under realistic assumptions about current policy, the rest of government faces deficits in excess of 4 percent of GDP over the next decade.
- We estimate that over a permanent horizon, the long-term fiscal gap for the federal government as a whole is now 8.0 percent of GDP under the CBO baseline and 10.8 percent of GDP under an adjusted baseline
- While the primary driving force behind the deficits over the next 10 years is reduced revenue, the primary driving force behind the deficit over the long term is increased spending due to demographics – in particular the retirement of the baby boom generation, a smaller number of new entrants into the labor force, and lengthening life spans – coupled with increasing per-capita health care expenditures.
- Despite heated political debate about deficits, there is broad consensus, extending even to the Administration's top economists, that sustained budget deficits have

adverse macroeconomic consequences, reducing the capital stock and future national income and raising interest rates. Moreover, even without any immediate macroeconomic consequences, these deficits will eventually require substantial and deleterious tax increases and spending cuts to deal with the debt that accumulates. It is inconceivable that the economy will be able to grow its way out of the deficits, and delaying steps to deal with the problem simply makes it worse. In addition, simply paying for the tax cuts embodied in the adjusted baseline would require massive cuts in other spending that are far beyond anything likely to be considered in the political arena. In such an environment, policy-makers, especially those who support making the tax cuts permanent, will be sorely tempted to turn to budget gimmicks.

- The only real solution to the nation's fiscal imbalance is some combination of reduced spending and increased revenue. Restoring fiscal discipline will require painful adjustments, and it is unrealistic to think that the required adjustments can be undertaken entirely on one side of the budget or the other. The painful decisions necessary to restore fiscal balance might be easier to enact and to enforce if policy-makers reinstated credible budget rules governing both spending and taxes, either of the form used in the past or perhaps a new variant.

Section II summarizes CBO's most recent 10-year budget baseline and the evolution of the baseline since 2001. Section III explores adjustments to the budget baseline. Section IV discusses related issues and implications over the 10-year horizon. Section V examines the long-run fiscal outlook. Section VI concludes.

II. The Changing Budget Outlook

Table 1 and Figure 1 report selected baseline projections made by the CBO since January 2001. (Appendix Table 1 provides annual figures.) The January 2006 baseline projects deficits of \$831 billion in the unified budget and \$3.4 trillion in the non-Social Security budget for fiscal years 2007 to 2016. Under the January 2006 baseline projections, both the unified budget and the non-social-security budget improve over time. The unified budget goes from a deficit of \$337 billion in 2006 to a surplus of \$67 billion in 2016. The non-social security deficit is \$517 billion in 2006 and declines over time, but still remains \$220 billion in 2016. Such projected improvements in the deficit have become a staple of recent CBO forecasts and, like other forecasted improvements in the recent past, seems likely to prove ephemeral. In particular, as discussed below, all of these apparent improvements are based on a series of artificial and overly favorable policy assumptions.

Projected budget outcomes have deteriorated dramatically since January 2001. The unified budget shows a cumulative decline of \$8.3 trillion over the 2002 to 2011 horizon, the equivalent of 6.2 percent of projected GDP over the same period. The deterioration is neither temporary nor cyclical – there is a substantial downward shift in every year of the projections. For example, the projected outcome for 2006 declined by \$842 billion, or 6.4 percent of GDP. The projection for 2011 fell by \$1.0 trillion, or 6.0 percent of GDP. Moreover, the declines have been consistent, occurring in each of the

past four years.² In the past two years alone, the fiscal outlook for the 2002-2011 period declined by \$500 billion, and the fiscal outlook for the 2005-2014 period by \$841 billion.

Table 2 and Figure 2 examine the composition of the decline since January 2001 in projected unified budget outcomes over the 2002-2011 horizon. About 58 percent of the decline is due to reductions in tax revenues, with the remaining 42 percent due to spending increases. Alternatively, 65 percent of the decline is due to legislative changes; 35 percent is due to economic and technical changes. Within the decline due specifically to legislative changes, tax cuts account for 45 percent, defense spending and homeland security spending account for 34 percent, and all (non-homeland security) domestic outlays, including the Medicare prescription bill, account for the rest.

Whereas Table 2 focuses on how projected outcomes have changed, Table 3 examines the actual decline in budget outcomes between 2000 and 2006. Despite assertions that domestic spending is skyrocketing out of control, Table 3 shows that almost two-thirds of the recent increase in budget deficits reflects lower revenue (from the tax cuts, the economic slowdown, and the decline in the stock market), not higher spending. Between 2000 and 2006, the budget changed from a surplus of 2.4 percent of GDP to a projected deficit of 2.6 percent of GDP. Of this 5-percentage-point-of-GDP change, 3.2 percentage points is due to lower revenues. In contrast, non-defense discretionary spending (which includes international assistance and pieces of homeland security) accounts for about 10 percent of the increase in the deficit as a share of GDP. (Although not shown in the table, increased non-homeland security domestic spending – i.e., excluding both international assistance and non-defense homeland security – accounts for just 5 percent of the deterioration in the budget balance through January 2006.)

Other evidence discussed below also supports the view that revenue declines, not spending increases, are the main driving force behind the increase in deficits. Federal spending in 2005 was actually below its average share of GDP between 1960 and 2000. By contrast, Federal revenue in 2004 was a smaller share of the economy than at any time since 1959. Although revenues rose somewhat in 2005, the revenue share in 2005 was lower than in all but six years between 1962 and 2002.

² A simple comparison of published baselines would inappropriately suggest that the budget situation improved markedly between January 2004 and January 2005: The January 2004 baseline projected deficits of \$1.9 trillion over the 2005-14 period and the January 2005 baseline projects deficits of \$1.4 trillion over the same period. Due to the rules that govern the construction of baseline estimates, however, the January 2005 CBO baseline omits spending for U.S. military operations in Iraq and Afghanistan and for other aspects of the war on terrorism. In contrast, the January 2004 baseline included about \$1.1 trillion in such outlays (including interest) over the 2005-14 period. Once the estimates are put on a consistent basis, the budget situation clearly deteriorated. For example, taking out the war supplemental from the January 2004 baseline, the baseline deficit projected for 2005-14 rises from \$785 billion in January 2004 to \$1,364 billion in January 2005. To maintain consistent presentation of the baseline over time, all presentations and discussion of the January 2004 baseline in this paper remove the supplemental war spending from the baseline. (For further discussion, see CBO 2005a.)

III. Adjusting the 10-Year Budget Outlook

The CBO baseline budget projections dominate public discussions of the fiscal status of the government. As CBO (2006, page 5) itself emphasizes, however, the baseline is not intended to serve as a prediction of likely budget outcomes. The set of default assumptions about current spending and tax policies used to develop the baseline are defined in part by statutory rules and hence are often unrealistic. Indeed, CBO (2006, Tables 1-4, 3-11 and 4-10) now prominently displays estimates of the budgetary implications of alternative assumptions.

Current Policy

We adjust the baseline budget figures in several ways.³ This clearly involves a set of judgment calls, so we explain the adjustments and their justifications below.

The most important area in which the baseline makes unrealistic assumptions involves expiring tax provisions. CBO assumes (by law) that Congress will extend some expiring mandatory spending programs,⁴ but that all temporary tax provisions (other than excise taxes dedicated to trust funds) expire as scheduled, even if Congress has repeatedly renewed them. All of the tax cuts enacted in 2001, 2002, 2003, and 2004 expire or “sunset” by the beginning of 2011 (see Gale and Orszag 2005). A variety of other tax provisions that have statutory expiration dates are routinely extended for a few years at a time as their expiration date approaches. We assume that almost all of these provisions will be extended. The one exception is the temporary reduced tax rate on repatriated dividends that was enacted in 2004. This was explicitly designed and justified as a one-time, temporary provision, whereas almost all of the other expiring provisions appear to be designed to be permanent.⁵

The second issue involves the alternative minimum tax (AMT), which offers a dramatic example of how the baseline projections generate unlikely outcomes (see Burman et. al. 2003). Our budget estimates reflect current policy toward the AMT in two ways. First, we assume that provisions of the AMT that expired at the end of 2005 – including higher AMT exemption levels that had been in place since the 2001 tax cuts and the use of personal non-refundable credits against the AMT, which had been in place for an even longer period – are granted a continuance. Second, we index the AMT

³ The adjustments described in this section are described in more detail in Auerbach, Gale, Orszag, and Potter (2003). Our adjustments are similar in spirit and magnitude, though differing in some of the details, to those made by others, including the Committee for Economic Development, Concord Coalition, and Center on Budget and Policy Priorities (2003) and Goldman Sachs (2003). For earlier calculations of similar adjustments, see also Auerbach and Gale (1999, 2000, 2001), Auerbach, Gale and Orszag (2002), and Gale and Orszag (2003, 2004).

⁴ CBO (2006, Table 3-6) reports that the baseline includes \$757 billion in outlays, not including debt service costs, for mandatory spending programs that are assumed to be extended beyond their expiration dates.

⁵ The temporary bonus depreciation provisions that were enacted in 2002 and expanded in 2003 expired at the end of 2004.

exemption, brackets, and phase-outs for inflation starting in 2007 at 2006 levels and allow dependent exemptions in the AMT starting in 2006.

The third area where CBO's baseline assumptions appear to be an unrealistic reflection of current policy involves discretionary spending, which typically requires new appropriations by Congress every year. The CBO baseline assumes that discretionary spending will remain constant in real dollars at the level prevailing in the first year of the budget period. Because population and income grow over time, this assumption implies that by 2016 discretionary spending will fall by 19 percent relative to gross domestic product (GDP) and by 13 percent in real per capita terms.

Given these issues, baseline discretionary spending could be adjusted in any of several plausible ways. We adjust the baseline on the assumption that real discretionary spending grows at the same rate as the population, consistent with adjustments that we have made in earlier years. This assumption generates a 10-year spending level on discretionary outlays and interest payments that is 0.4 percent of GDP higher than what would occur if real discretionary spending remained constant (as in the baseline).

Retirement Funds

Unified budget projections can provide 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, an important 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. The approach we take in this section is to separate some of these programs from the official budget. In particular, we exclude the trust funds for Social Security, Medicare, and government pensions. Below, we extend the budget horizon to be long enough to capture the time periods when cash flow turns negative.

Implications of the Adjustments

Table 4 and Figures 3 and 4 show the sizable effects of adjusting the budget for current policy assumptions and retirement trust funds over the 10-year period. (Appendix Tables 2 and 3 provide annual figures.) As noted above, the CBO unified budget baseline projects a 10-year deficit of \$831 billion, with deficits falling 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 \$4.8 trillion (2.8 percent of GDP) over the next decade. Rather than shrinking over time, the deficit reaches \$572 billion (3.0 percent of GDP) in 2014 and rises to \$717 billion (3.4 percent of GDP) by 2016. The adjusted unified baseline shows a deficit of at least 2.4 percent of GDP in every year through 2016 and is growing at the end of the budget horizon. By 2016, the annual difference between the official projected unified budget and our alternative unified deficit is \$784 billion (3.8 percent of GDP).

The unified budget, moreover, includes retirement trust fund surpluses of more than \$3.0 trillion. Excluding retirement funds, which already face long-term deficits themselves, the rest of government is projected to face a 10-year deficit of \$7.8 trillion. The deficit outside of the retirement trust funds is projected to be at least 4.3 percent of GDP in every year through 2016 and grows to 4.9 percent of GDP by 2016.

Thus, one simple way to summarize the fiscal status of the government is to note that the retirement trust funds face substantial long-term deficits, and the rest of government is also well out of fiscal balance, facing deficits in excess of 4 percent of GDP over the next decade, under reasonable assumptions about current policy.

Although the precise figures should not be taken literally due to uncertainty and other factors, the basic trends in the data are clear. First, the CBO baseline suggests that the budgetary future features deficits that decline within the 10-year window, while our adjusted unified budget baseline implies continual, substantial and rising unified deficits through 2016. Second, adjusting for the fact that the retirement trust funds are running current surpluses but will run deficits in the future shows that the budget outlook is far worse than even the adjusted unified budget figures would suggest – and the difference grows over time. Third, given the increase in defense expenditures that is virtually certain to occur, our discretionary spending assumptions may prove conservative. If discretionary spending were to remain at its current share of GDP (7.6 percent) over the next decade, deficits would be \$1.9 trillion (1.1 percent of GDP) larger over the next 10 years than our adjusted baseline.

It is also worth noting the effects of the adjustments in detail. The tax adjustments have a significant impact on revenue levels and trends. Making the tax cuts permanent would reduce revenue by \$2.3 trillion over the next decade; including interest costs, the deficit would rise by \$2.6 trillion. About 82 percent of these effects occur in the second half of the 10-year horizon, between 2012 and 2016. Extending the other expiring provisions, except the temporary rate on repatriated dividends, reduces revenue by another \$334 billion and raises the deficit by \$410 billion. The further adjustments to the AMT noted above (indexing for inflation and adding dependent exemptions) would reduce revenues by \$258 billion and increase the deficit by \$295 billion.⁶

All told, the tax changes would reduce the level of revenues by \$2.6 trillion over the 2007-2016 period. This represents 1.5 percent of GDP and 8.0 percent of baseline

⁶ Assuming the other expiring provisions are made permanent, the total revenue loss from extending the AMT exemption and the treatment of personal credits and indexing the AMT for inflation is \$940 billion based on a combined estimates from CBO and the Tax Policy Center Microsimulation Model. Table 4 splits these costs into two components. The cost of extending the exemption and use of non-refundable credits (\$682 billion) is shown as an “Extend AMT Provisions of EGTRRA, JGTRRA” and is based on CBO 2006 estimates. It is equal to the sum of lines “Increased AMT Exemption Amount”, “Treatment of Personal Credits under AMT”, and “Interaction from Extending All Provisions Together” in Table 4-10 of CBO 2006. The additional cost of indexing the AMT for inflation (\$258 billion) are shown separately and are based on estimates using the Tax Policy Center micro-simulation model. Under these assumptions about 7.8 million taxpayers would face the AMT in 2016.

revenues over the budget period. Moreover, these figures grow over time. In 2016, for example, revenues would decline by \$445 billion, representing 2.1 percent of GDP and 10.8 percent of baseline revenues in that year. As a result, the adjustments alter not only the level of revenues, but also the trend. Under the CBO baseline budget, revenues rise from 17.9 percent of GDP in 2007 to 19.7 percent in 2016. Under our adjusted baseline, revenue is essentially flat as a share of GDP, at 17.4 percent in 2007 and 17.3 percent in 2016.⁷

Adjusting real discretionary spending to grow with the population raises outlays by \$552 billion relative to the CBO baseline and raises the deficit by \$650 billion. With this adjustment, discretionary spending still declines from 7.7 percent of GDP in 2004 to 6.4 percent in 2016, relative to 5.8 percent of GDP under the CBO baseline in 2016. Total expenditures in the adjusted baseline rise by about 0.9 percent of GDP from 19.8 percent in 2004 to 20.7 percent in 2016; the CBO baseline has spending at 19.8 percent in 2004 and 19.4 percent in 2016.

Under CBO's baseline, the ratio of public debt to GDP peaks at 38 percent in 2007 and then declines gradually to 28 percent by 2016. Under the adjusted baseline, the debt-GDP ratio rises to 47.3 percent in 2016, the highest level since 1996.

IV. Discussion

The projections above indicate that the nation faces substantial deficits over the next 10 years. For reasons discussed below, the budget outlook deteriorates further beyond the 10-year horizon. Several aspects of these short- and medium-term deficits are worth emphasizing.

First, the primary driving force behind the recent deficits and the deficits over the next 10 years is reduced revenues. Revenues have been at historic lows in recent years as a share of GDP. In 2004, federal revenues were 16.3 percent of GDP, the lowest share since 1959. Income tax revenues were 7.0 percent of GDP, the lowest share since 1951. Looking ahead over the next decade, federal revenues in the adjusted baseline average 17.2 percent of GDP, less than the 18.2 percent of GDP average from 1960-2000; revenues averaged at least 17.9 percent of GDP in each individual decade over that period. In contrast, spending is at or below its historical average over the past several decades. Spending was 19.8 percent of GDP in 2004, would average about 20.0 percent of GDP for 2007-2016 in the adjusted baseline, and averaged 20.3 percent of GDP from 1960 to 2000 (See Figures 5 and 6).

Second, even significant economic growth will not solve the budget problem in the first half of the 10-year budget period while the tax cuts enacted in 2001, 2002, 2003 and 2004 are in effect. Table 5 shows that the nation is unlikely to be able to grow out of

⁷ An implication of this result is that factors such as real bracket creep and projected increases in withdrawals from retirement saving accounts do not explain the increase in the ratio of revenue to GDP in the baseline. The increase in revenue as a share of GDP in the CBO baseline is due to the assumptions that the expiring provisions actually expire and that the AMT is allowed to grow explosively.

the problem until the second half of the budget period when the tax cuts expire. If economic growth is a full percentage point faster than CBO predicts (that is, the economy grows more than one-third faster than projected),⁸ the unified budget would be in deficit averaging 0.7 percent of GDP over the first half of the decade, in surplus averaging 2.5 percent of GDP over the second half of the decade, and in surplus averaging 1.1 percent of GDP over the full decade. But the adjusted unified budget would still show a deficit averaging 1.2 percent of GDP over the full decade, while the deficit in the adjusted budget excluding retirement trust funds would average of 3.0 percent of GDP over the full decade, and would amount to 2.0 percent of GDP in 2016.⁹ In other words, more rapid economic growth can reduce the deficit, but even substantial increases in the growth rate would not eliminate the average fiscal imbalance over the next decade, let alone the imbalances thereafter. Moreover, as even the President's economic advisers acknowledge, large sustained deficits are likely to be a drag on growth, not a boost. In addition, as Table 5 shows, if growth is slower than expected, deficits will skyrocket.

Third, delaying corrective action only makes the problem harder. Table 6 shows that if no action is taken before 2011, the required spending cuts or tax increases required to balance the adjusted budget in that year would be substantial: a 24 percent increase in individual and corporate income tax revenue, or a 42 percent reduction in all discretionary spending, for example. Eliminating 85 percent of all non-defense discretionary spending would produce a balanced budget. None of these choices seems likely to garner sufficient political support or to be equitable. Note, that the required adjustments in 2011 do not reflect the substantial spending increases that will occur as the baby boomers begin to retire en masse.

Fourth, although the adjusted baseline allows for the recent tax cuts to be made permanent, for sizable AMT adjustments, and for extensions of other expiring provisions, it should not be presumed that such adjustments would be painless or optimal. In fact, the costs of paying for these tax cuts would be immense. Paying for the tax cuts in 2016 would require any one of the following, or cuts of a similar magnitude (see Table 7): a 14 percent reduction in all non-interest outlays; a 100 percent reduction in domestic discretionary spending (other than homeland security); a 53 percent cut in social security benefits, a 58 percent reduction in Medicare payments, complete abolition of the Medicaid program, or a 62 percent cut in all federal spending other than social security, Medicare, Medicaid, defense, homeland security and net interest. These reductions are obviously far beyond the scope of what has been considered politically feasible.

⁸ CBO (2006) projects that potential output will grow at an average rate of 2.8 percent per year over the decade. This is somewhat lower than the 3.5 percent annual rate prevailing from 1950 to 2005. The difference is explained largely by the fact that the potential labor force is expected to grow much more slowly over the next decade (0.7 percent per year) than in the past (1.6 percent per year). CBO's projections of actual growth through 2011 match the Administration's, at 3.1 percent per year.

⁹ These calculations are based on rules of thumb relating small changes in economic growth rates to changes in the projected budget outcomes, provided by CBO (2006, Appendix C). CBO cautions against using the rules of thumb to project the effects of large changes, and that caveat applies to the interpretation of our results as well.

V. Long-Term Fiscal Gap

The fiscal gap is an accounting measure that is intended to reflect the long-term budgetary status of the government.¹⁰ As developed by Auerbach (1994) and implemented in many subsequent analyses, the “fiscal gap” measures the size of the immediate and permanent increase in taxes and/or reductions in non-interest expenditures that would be required to set the present value of all future primary surpluses equal to the current value of the national debt, where the primary surplus is the difference between revenues and non-interest expenditures.¹¹ Equivalently, it would establish the same debt-GDP ratio in the long run as holds currently. The gap may be expressed as a share of GDP or in dollar terms.

We examine four sets of projections for measuring the fiscal gap. The projections differ in two dimensions: the 10-year baseline used and the source of projections for Social Security and Medicare spending beyond the official 10-year CBO projection period. For the 10-year baseline, two sets of our long-term projections (denoted I and II) are based on the official Congressional Budget Office (CBO) baseline for the next 10 years; the other two (III and IV) are based on our adjusted baseline. For all four sets of projections, most of our assumptions after the first decade are similar under the official baseline and the adjusted baseline. In particular, we assume that Medicaid spending is based on Scenario 2 from CBO’s most recent long-term projections (CBO 2005b)¹² and income taxes, discretionary spending, and other entitlements remain constant as a share of GDP after 2016 (although those shares differ between the two 10-year baselines).¹³ However, for projections I and III we assume that Social Security and Medicare spending follow the intermediate cost projections of their respective Trustee reports; for projections II and IV, we assume that spending on these two programs follow Scenario 2 of CBO (2005b) through 2050, and then grow at the same rate as projected by the Trustees thereafter.

Figure 7 shows total non-interest expenditure and revenue under all four sets of projections through 2080. There are only six series plotted, as the revenue projections are the same for scenarios I and II and scenarios III and IV. As the figure shows, the principal difference among the scenarios is on the revenue side, with revenue roughly 2.5

¹⁰ Auerbach, Gale, Orszag, and Potter (2003) discuss the relationship between the fiscal gap, generational accounting, accrual accounting and other ways of accounting for government.

¹¹ Over an infinite planning horizon, this requirement is equivalent to assuming that the debt-GDP ratio does not explode. See Auerbach (1994, 1997), Auerbach and Gale (1999, 2000, 2001), Auerbach, Gale, and Orszag (2002, 2003, 2004), Committee for Economic Development et al. (2003), Goldman Sachs (2003), and the International Monetary Fund (2004).

¹² Scenario 2 assumes that medical costs per beneficiary increase at 1.0 percent per year faster than per capita GDP growth, which is the same long-term assumption made in the Medicare trustees’ projections. The CBO projections end in 2050. After 2050, we assume that Medicaid spending grows at the same rate as Medicare.

¹³ Note that tax revenue, discretionary spending, and other entitlements may not automatically remain a constant share of GDP after 2015 in the absence of further policy interventions. We are implicitly assuming any necessary policy adjustments to maintain these constant shares.

percent of GDP lower in the out-years under the alternative baseline than under the official baseline. The fiscal gap reflects the present value of the difference between annual expenditure and annual revenue (such as those shown in Figure 7) plus the current value of the public debt.

Under the official baseline assumptions and the Trustees projections (scenario I), we estimate that the fiscal gap through 2080 is now 4.6 percent of GDP over the same period (Table 8).¹⁴ This implies that an immediate and permanent increase in taxes or cut in spending of 4.6 percent of GDP – or nearly \$600 billion per year in current terms – would be needed to maintain fiscal balance through 2080. In present-value dollars, rather than as a share of GDP, the fiscal gap through 2080 under these assumptions amounts to \$25 trillion. The gap is slightly smaller under Scenario (II), which uses the CBO baseline but also the CBO projections for Social Security and Medicare, which are slightly more optimistic than those of the Trustees.

The fiscal gap is much larger, though, under either scenario based on the adjusted baseline (III or IV), which assumes a lower level of revenue and a higher level of discretionary spending than the official baseline. Under the adjusted baseline – in which the 2001 and 2003 tax cuts are extended, the AMT is reformed, and discretionary spending keeps pace with inflation and population growth over the next decade – the fiscal gap through 2080 amounts to 7.3 (6.8) percent of GDP under scenario III (IV), or 2.7 percent of GDP more than under the official baseline. In present-value dollars, the fiscal gap under these scenarios amounts to between \$37 and \$40 trillion through 2080.

The fiscal gap is even larger if the time horizon is extended, since the budget is projected to be running substantial deficits in years approaching and after 2080. If the horizon is extended indefinitely, for example, the fiscal gap rises to 8.0 percent of GDP under the official baseline (scenario I) and 10.8 percent of GDP under the adjusted baseline (scenario III). In present-value dollars, the fiscal gaps corresponding to these annual measures are estimated at \$72 trillion and \$98 trillion, respectively.

The required adjustments represent substantial shares of current spending or revenue aggregates. A fiscal adjustment of 8.0 percent of GDP, for example, translates into a reduction in non-interest spending of 43 percent or an increase in revenues of 45 percent. Because the fiscal gap measures the size of the required *immediate* fiscal adjustment, the required adjustment also rises if action is delayed.

VI. Conclusion

Our estimates, and those of many others, show that the nation faces a serious fiscal problem. If allowed to persist, fiscal gaps will impose significant and growing economic costs over the medium term and potentially devastating effects over the longer term. The reason is that budget deficits reduce national saving, and lower levels of

¹⁴ The discount rate in these calculations is based upon the intermediate assumptions of the Social Security trustees, which assume a nominal interest rate of 5.8 percent.

national saving reduce future national income.¹⁵ Heated political rhetoric about deficits hides the fact that there is widespread agreement among economists of all political views that sustained deficits are harmful. For example, even President Bush's Council of Economic Advisers (2003, Box 1-4) acknowledges that "one dollar of [public] debt reduces the capital stock by about 60 cents" and "a conservative rule of thumb based on this relationship is that interest rates rise by about 3 basis points for every additional \$200 billion in government debt." These estimates are quite similar to those in Gale and Orszag (2004), which in turn suggest that sustained deficits of the magnitude presented above will significantly reduce long-term national income and interest rates. Beyond these direct effects, sustained budget deficits can also reduce confidence and further hamper economic performance (Rubin, Orszag, and Sinai 2004). Ultimately, the U.S. role as the world's economic leader may also be threatened by long-term systemic fiscal shortfalls (Friedman 1988). All of these costs of deficits, moreover, are in addition to the eventual need to enact draconian spending cuts or burdensome tax increases required to re-establish fiscal sustainability.

Rather than address the underlying fiscal imbalance and make the necessary hard choices regarding taxes and spending, politicians may feel an overwhelming temptation to turn to budget gimmicks to hide the problem. Policy makers and the public should be especially aware of at least four tricks: (a) policies that significantly raise long-term deficits, such as the President's proposals to make the 2001-3 tax cuts permanent, and also including policies that leave the short-term deficit unaffected or even reduced, but raise the long-term deficit, such as the President's proposals to create Lifetime Saving Accounts and Retirement Saving Accounts; (b) policies that incur massive short-term borrowing and promise, but have no credible way of enforcing, spending cuts in the distant future – like proposals to finance individual accounts in social security with benefit cuts many decades in the future; (c) policies that shift attention away from long-term fiscal challenges – for example, focusing on a 5-year budget window; and (d) policies that allow politicians to ignore budget issues – such as not reinstating budget rules that require spending and tax changes to be self-financing, or even worse, the Administration's proposal in last year's budget to allow the tax cuts to be made permanent without showing any change in the budget baseline.¹⁶

The American public is not averse to deficit-closing measures, and appears willing to consider revenue increases as part of the solution. Indeed, in a recent survey, respondents preferred, by a 60 to 21 margin, to close the deficit by scaling back some of the recent tax cuts rather than cutting spending programs (Harwood 2004).

¹⁵ To be sure, a complete policy analysis should take into account the direct effects of the change in spending or taxes that generate the deficit, as well as the indirect effects of the associated changes in the deficit. Reductions in marginal tax rates, for example, may spur supply-side responses that raise growth at the same time that the deficits created by the tax cuts would reduce growth. The net effect is ambiguous in theory and depends on the structure and magnitude of the tax cut. Most studies, however, have found that the net effects of the President's tax cuts on medium- and long-term growth will prove negative, unless the entire tax cut is financed with spending cuts, which seems unlikely given recent spending trajectories.

¹⁶ Analytical Perspectives, Budget of the United States Government, Fiscal Year 2006, page 240.

Yet Congress and the Bush Administration have either been unable or unwilling to act on deficit reduction. Not only have taxes been cut repeatedly, but the large majority of the Republican members of Congress, as well as the President, have signed the “No New Taxes” pledge. At the same time, spending has risen in recent years, not only in defense, but in non-defense discretionary spending as well. The largest entitlement program in 40 years, the new Medicare prescription drug benefit, was enacted in 2003. These spending increases received the overwhelming support of signers of the “No New Taxes” Pledge (Gale and Kelly 2004). Clearly, a majority party and a President who have cut taxes repeatedly, want to cut taxes more, are unwilling to raise taxes, and have continually increased spending, are not pursuing a fiscally responsible path.

A set of workable budget rules may encourage more fiscal discipline among policy-makers; after all, policy-makers have displayed little willingness to embrace such discipline in the absence of such rules. Such rules could help create and enforce spending cuts and tax increases to close the deficit. Devising such rules is not an easy task, though (see Auerbach 2006 and Gale 2001 for analysis of some options). In terms of particular programmatic changes, Rivlin and Sawhill (2004, 2005) describe several possible avenues for restoring fiscal balance in the medium-term. These proposals combine spending cuts and tax increases, phase in gradually over time, and avoid budget gimmicks. Similar proposals, coupled with realistic reforms of the long-term entitlement programs (see, for example, Diamond and Orszag 2004) would be significant steps in the right direction.

References

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, pp. 141-175.

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

Auerbach, Alan J. 2006. "Budget Windows, Sunsets, and Fiscal Control." Journal of Public Economics 90(1-2), January, pp. 87-100.

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

_____. 2000. "Perspectives on the Budget Surplus." National Tax Journal 53(3), September, pp. 459-73.

_____. 2001. "Tax Cuts and the Budget." Tax Notes 90, March 26, pp. 1869-82.

Auerbach, Alan J., William G. Gale, and Peter R. Orszag. 2002. "The Budget Outlook and Options for Fiscal Policy." Tax Notes 95(11), June 10, pp. 1639-62.

_____. 2003. "Reassessing the Fiscal Gap: Why Tax-Deferred Saving Will Not Solve the Problem." Tax Notes 100(4), July 28, pp. 567-84.

_____. 2004. "Sources of the Fiscal Gap." Tax Notes 103(8), May 24, pp.1049-59.

Auerbach, Alan J., William G. Gale, Peter R. Orszag, and Samara Potter. 2003. "Budget Blues: The Fiscal Outlook and Options for Reform," in Henry Aaron, James Lindsay, and Pietro Nivola, Agenda for the Nation. Washington: Brookings Institution, pp. 109-143.

Burman, Leonard E., William G. Gale, and Jeffrey Rohaly. 2003. "The AMT: Projections and Problems." Tax Notes 100(1), July 7, pp. 105-17.

Committee for Economic Development, Concord Coalition, and Center on Budget and Policy Priorities. 2003. "The Development Crisis – Deficits Matter." September 29.

Congressional Budget Office. 2005a. The Budget and Economic Outlook: Fiscal Years 2006 to 2015. January.

_____. 2005b. The Long-Term Budget Outlook. December.

_____. 2006. The Budget and Economic Outlook: Fiscal Years 2007 to 2016. January.

Council of Economic Advisers. 2003. Economic Report of the President 2003. Washington, DC: Government Printing Office.

Diamond, Peter A. and Peter R. Orszag. 2004. Saving Social Security: A Balanced Approach. Washington, DC: Brookings Institution Press.

Friedman, Benjamin. 1988. Day of Reckoning: The Consequences of American Economic Policy Under Reagan and After. New York: Random House.

Gale, William G. 2001. "Building a Better Budget." American Outlook 4(3), May/June, pp. 25-27.

Gale, William G. and Brennan Kelly. 2004. "The No New Taxes Pledge." Tax Notes 104(2), July 12, pp. 197-209.

Gale, William G. and Peter R. Orszag. 2003. "Perspectives on the Budget Outlook." Tax Notes 98(6), February 10, pp. 1005-17.

_____. 2004. "The Budget Outlook: Updates and Implications." Tax Notes 102(7), February 16, pp. 915-929.

Gale, William G. and Peter R. Orszag. 2005. "An Economic Assessment of Tax Policy in the Bush Administration: 2001-2004." Boston College Law Review. Forthcoming.

Harwood, John. 2004. "Poll Shows Majority of American Would Rather Pay More to IRS Than Spend Less on Programs." Wall Street Journal. January 15.

International Monetary Fund. 2004. Martin Muhleisen and Christopher Towe, eds. "U.S. Fiscal Policies and Priorities for Long-Run Sustainability." Occasional Paper 227.

Rivlin, Alice, and Isabel Sawhill, eds. 2004. Restoring Fiscal Sanity: How to Balance the Budget. Washington: Brookings Institution.

Rivlin, Alice, and Isabel Sawhill, eds. 2005. Restoring Fiscal Sanity 2005: Meeting the Long-Run Challenge. Washington: Brookings Institution.

Rubin, Robert, Peter R. Orszag, and Allen Sinai. 2004. "Sustained Budget Deficits: Longer-Run U.S. Economic Performance and the Risk of Financial and Fiscal Disarray." Paper presented at the AEA-NAEFA Joint Session, Allied Social Science Associations Annual Meetings, The Andrew Brimmer Policy Forum. January.

Table 1
Changing Budget Projections
(Surplus or Deficit in Billions of Current Dollars)

<u>Projection Date</u>	<u>Projection Horizon</u>	<u>Unified Budget</u>	<u>Non-Social Security Budget</u>	<u>Non-Social Security, Non-Medicare Budget</u>
<u>10-Year Baseline</u>				
January 2001 ¹	2002-11	5610	3119	2727
January 2002 ²	2002-11	1601	-745	-1127
January 2003 ³	2002-11	20	-2219	-2551
January 2004 ⁴	2002-11	-2876	-4873	-5090
January 2004, No Iraq ⁵	2002-11	-2207	-4204	-4421
January 2005 ⁶	2002-11	-2581	-4602	-4817
January 2006 ⁷	2002-11	-2707	-4674	-4828
January 2002 ²	2003-12	2263	-242	-632
January 2003 ³	2003-12	629	-1768	-2107
January 2004 ⁴	2003-12	-2742	-4850	-5055
January 2004, No Iraq ⁵	2003-12	-1937	-4044	-4250
January 2005 ⁶	2003-12	-2352	-4498	-4708
January 2006 ⁷	2003-12	-2511	-4590	-4721
January 2003 ³	2004-13	1336	-1231	-1580
January 2004 ⁴	2004-13	-2383	-4608	-4805
January 2004, No Iraq ⁵	2004-13	-1431	-3656	-3853
January 2005 ⁶	2004-13	-1891	-4174	-4396
January 2006 ⁷	2004-13	-2096	-4297	-4421
January 2004 ⁴	2005-14	-1893	-4250	-4438
January 2004, No Iraq ⁵	2005-14	-785	-3142	-3330
January 2005 ⁶	2005-14	-1364	-3796	-4033
January 2006 ⁷	2005-14	-1626	-3958	-4075
January 2005 ⁶	2006-15	-855	-3422	-3685
January 2006 ⁷	2006-15	-1235	-3680	-3797
January 2006 ⁷	2007-16	-831	-3383	-3427

¹Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2002-2011." January 2001. Tables 1-1 and 1-7.

²Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2003-2012." January 2002. Summary Table 1, Tables 1-1 and 1-6.

³Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2004-2013." January 2003. Tables 1-2 and 1-5.

⁴Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2005-2014." January 2004. Table 1-1.

⁵Authors' calculations using adjusted discretionary spending numbers from CBO(2004) Table 3-5.

⁶Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2006-2015." January 2005. Table 1-1.

⁷Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2007-2016." January 2006.

Table 2
Sources of Change in the Unified Budget Baseline, 2002-2011
January 2001 - January 2006^{1,2}

Source of Change	2002-2006		2007-2011		2002-2011	
	(\$ billions)	(% of change)	(\$ billions)	(% of change)	(\$ billions)	(% of change)
Legislative Changes						
Tax Cuts	1,114	30.9	1,333	28.3	2,447	29.4
Defense and HS Outlays	672	18.6	1,181	25.1	1,853	22.3
Other Outlays	397	11.0	754	16.0	1,152	13.8
Subtotal	2,184	60.5	3,268	69.4	5,452	65.5
Economic and Technical Changes						
Revenue	1,392	38.6	966	20.5	2,358	28.3
Outlay	34	0.9	476	10.1	510	6.1
Subtotal	1,426	39.5	1,442	30.6	2,868	34.5
Revenue - Total	2,506	69.4	2,299	48.8	4,805	57.8
Outlays - Total	1,104	30.6	2,411	51.2	3,515	42.2
Total Change in Surplus	3,610	100.0	4,710	100.0	8,320	100.0

¹Columns may not sum to total due to rounding.

²Source: authors' calculations based on CBO supplementary tables and debt service matrix.

Table 3
Sources of Change in Unified Budget, 2000 to 2006
(Percent of GDP)^{1,2}

Source of Change	2000	2006	Difference	Share of Change
Unified Budget Surplus (or Deficit)	2.4	-2.6	-5.0	100.0
Revenues	20.8	17.7	-3.2	63.3
Spending	18.4	20.2	1.8	36.7
Net Interest	2.3	1.7	-0.6	-12.7
Non-Interest Spending	16.1	18.6	2.5	49.2
Mandatory	9.8	10.9	1.2	23.1
Discretionary	6.3	7.6	1.3	26.1
Defense	3.0	3.8	0.8	15.7
Non-Defense	3.3	3.8	0.5	10.4

¹Due to rounding, columns may not sum to total.

²Source and notes: see Appendix Table 3.

Table 4
Baseline and Adjusted Budget Outcomes for 2007-2016
January 2006

Projection Horizon	2007-11	2012-16	2007-16	Percent GDP 2007-16
CBO Unified Budget Baseline	-1,107	276	-831	-0.5
Adjustment for Expiring Bush Tax Cuts				
Extend Estate and Gift Tax Repeal	-38	-320	-358	-0.2
Extend Reduced Tax Rates on Dividends and Capital Gains	-47	-146	-193	-0.1
Extend Other Non-AMT Provisions of EGTRRA, JGTRRA	-101	-920	-1,020	-0.6
Extend AMT Provisions of EGTRRA, JGTRRA	-257	-425	-682	-0.4
Interest	-38	-343	-382	-0.2
Subtotal	-481	-2,154	-2,635	-1.5
Adjustment for other Expiring Provisions				
Revenue	-123	-211	-334	-0.2
Interest	-14	-62	-76	0.0
Subtotal	-137	-273	-410	-0.2
Adjustment for All Expiring Tax Provisions				
Revenue	-566	-2,022	-2,587	-1.5
Interest	-52	-405	-458	-0.3
Subtotal	-618	-2,427	-3,045	-1.8
=Unified Budget adjusted for expiring tax provisions	-1,725	-2,151	-3,876	-2.3
-Adjustment for AMT				
Index AMT	-45	-213	-258	-0.1
Interest	-4	-34	-38	0.0
Subtotal	-49	-247	-295	-0.2
=Unified Budget adjusted for expiring tax provisions and AMT	-1,773	-2,398	-4,171	-2.4
-Adjustment for holding real DS/person constant				
Hold real DS/person constant	140	412	552	0.3
Interest	13	85	97	0.1
Subtotal	153	497	650	0.4
=Unified Budget adjusted for expiring tax provisions and AMT with real DS/person constant	-1,926	-2,894	-4,821	-2.8
-Adjustment for Retirement Funds				
Social Security	1,148	1,404	2,552	1.5
Medicare	66	-22	44	0.0
Government Pensions	196	223	419	0.2
Subtotal	1,410	1,605	3,015	1.8
=Non-retirement fund budget adjusted for expiring tax provisions and AMT	-3,336	-4,499	-7,836	-4.6

¹Due to rounding, columns may not sum to total.

²Source and notes: see Appendix Table 4.

Table 5
Effect of GDP Growth Rates on Baseline and Adjusted Budget Outcomes for 2006-2016
January 2006 Projections

	Surplus		Surplus in \$ Billions				2007-2011 Surplus		2012-2016 Surplus		2007-2016 Surplus	
	2006	2011	2016	2006	2011	2016	% GDP	\$ Billions	% GDP	\$ Billions	% GDP	\$ Billions
CBO Unified Budget Baseline												
GDP Grows 1% Faster	-2.5	0.6	3.2	-327	96	667	-0.7	-527	2.5	2406	1.1	1,879
GDP Grows at Projected Rate	-2.6	-0.7	0.3	-337	-114	67	-1.5	-1107	0.3	276	-0.5	-831
GDP Grows 1% Slower	-2.7	-1.9	-2.6	-347	-324	-533	-2.2	-1687	-1.9	-1854	-2.1	-3,541
Adjusted Unified Budget												
GDP Grows 1% Faster	-2.6	-1.5	-0.3	-339	-249	-117	-1.8	-1346	-0.8	-764	-1.2	-2,111
GDP Grows at Projected Rate	-2.7	-2.7	-3.2	-349	-459	-717	-2.5	-1926	-3.0	-2894	-2.8	-4,821
GDP Grows 1% Slower	-2.7	-4.0	-6.0	-359	-669	-1,317	-3.3	-2506	-5.2	-5,024	-4.4	-7,531
Adjusted Non-Trust Fund Budget												
GDP Grows 1% Faster	-4.4	-3.3	-1.9	-574	-560	-417	-3.6	-2756	-2.5	-2369	-3.0	-5,126
GDP Grows at Projected Rate	-4.4	-4.6	-4.8	-584	-770	-1,017	-4.4	-3336	-4.7	-4499	-4.6	-7,836
GDP Grows 1% Slower	-4.5	-5.5	-7.7	-594	-980	-1,617	-5.1	-3916	-6.9	-6629	-6.1	-10,546

Source: Author's calculations based on CBO (2006).

Table 6
What Would It Take to Balance the Budget in 2011?

	CBO Unified Baseline	Adjusted Unified Baseline	Adjusted Non- Retirement Baseline	Memo: Baseline Revenues and Spending, 2011
Projected Deficit as % of GDP	-114 -0.7	-459 -2.7	-770 -4.6	-
Percent Cut in :				
All Non-interest Outlays	-3.9	-15.6	-26.1	2,953
All Mandatory Spending	-6.1	-24.6	-41.3	1,866
All Discretionary Spending	-10.5	-42.2	-70.9	1,087
All Non-Defense DS	-21.2	-85.2	-142.9	539
All Spending Except: Interest, SS, Medicare Medicaid, Defense, Homeland Security	-14.5	-58.4	-98.0	786
Percent Increase in:				
All Tax Revenues	3.6	14.6	24.5	3,138
Income Tax	7.3	29.2	49.0	1,572
Corporate Tax	36.9	148.6	249.3	309
Both Income and Corporate Tax	6.1	24.4	40.9	1,881

Source: Authors' calculations based on CBO (2006).

Table 7
Paying for Permanent Tax Cuts in 2016

	Extend Tax Cuts and Adjust AMT ¹	Memo: 2016 Baseline Revenue/Spending (\$Billions) ²
Revenue Loss in 2016 (in \$ Billions)	510	
Required Percentage Change in*		
All Non-interest Outlays	-13.6	3,746
Discretionary Spending	-41.8	1,219
Defense, HS, International	-72.0	708
Other	-99.8	511
Mandatory Spending	-20.2	2,527
Social Security	-53.0	962
Medicare	-57.6	885
Medicaid	-123.4	413
All Three	-22.6	2,260
All Spending Except:	-62.2	819
Interest, Social Security, Medicare, Medicaid, Defense, and Homeland Security		
Revenue		
Payroll Tax	38.6	1,319
Corporate Tax	141.6	360

(1) Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2007-2016." January 2006. Authors' calculations.

(2) Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2007-2016." January 2006.

* Percent cuts that exceed 100 are arithmetic artifacts. No program can be cut more than 100 percent.

Table 8
Fiscal Gaps

Baseline: SS and Medicare: Scenario:	Official CBO Baseline		Adjusted Baseline	
	Trustees (I) Through Permanent 2080	CBO (II) Through Permanent 2080	Trustees (III) Through Permanent 2080	CBO (IV) Through Permanent 2080
As a Percent of GDP	4.57	4.12	7.26	6.81
In Trillions of Present-Value Dollars	25.1	22.6	39.8	37.3

Source: Authors' calculations

Figure 1
Changing Unified Budget Projections

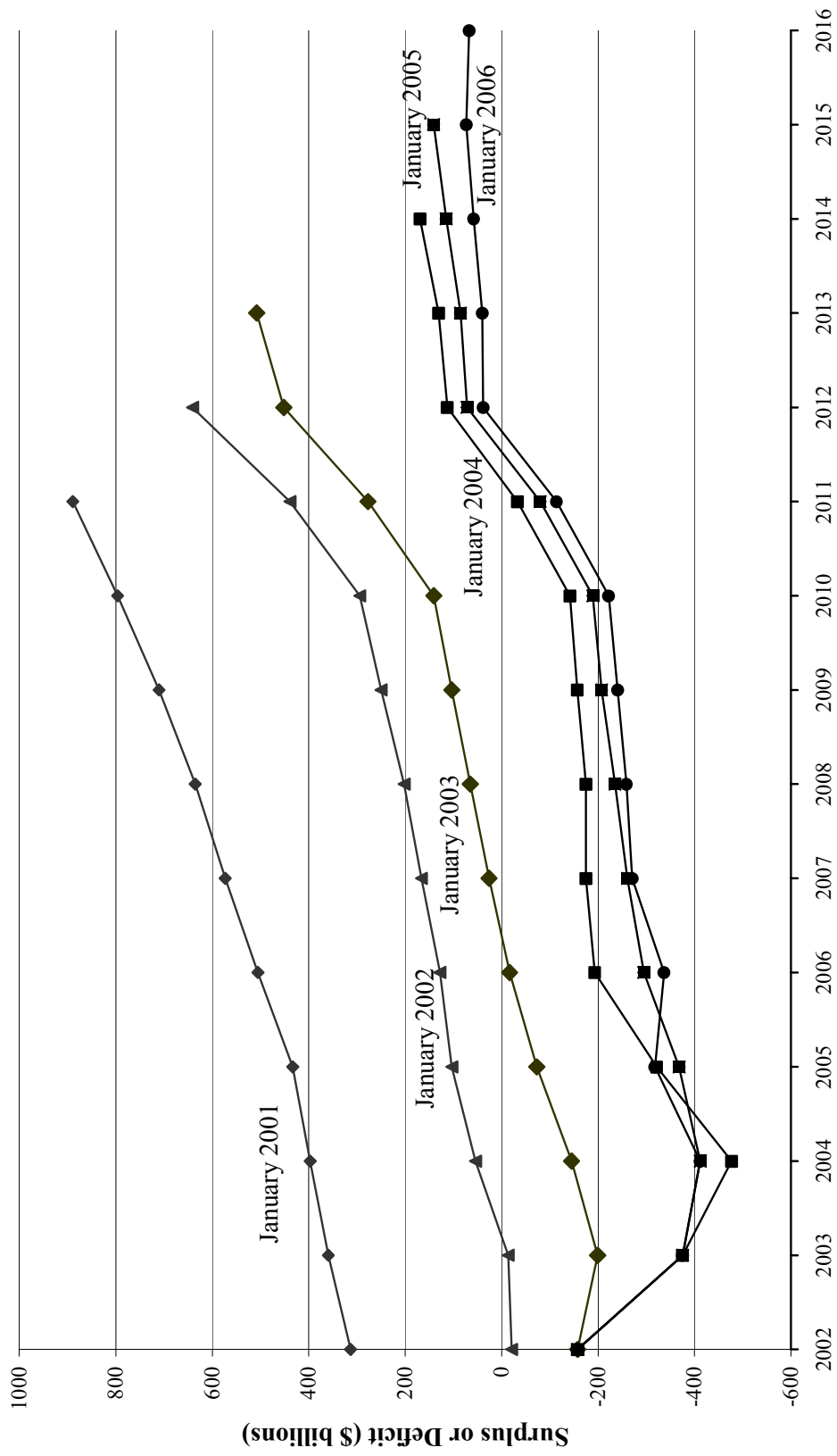


Figure 2
Source of Change to Unified Budget Projection, 2001-2011

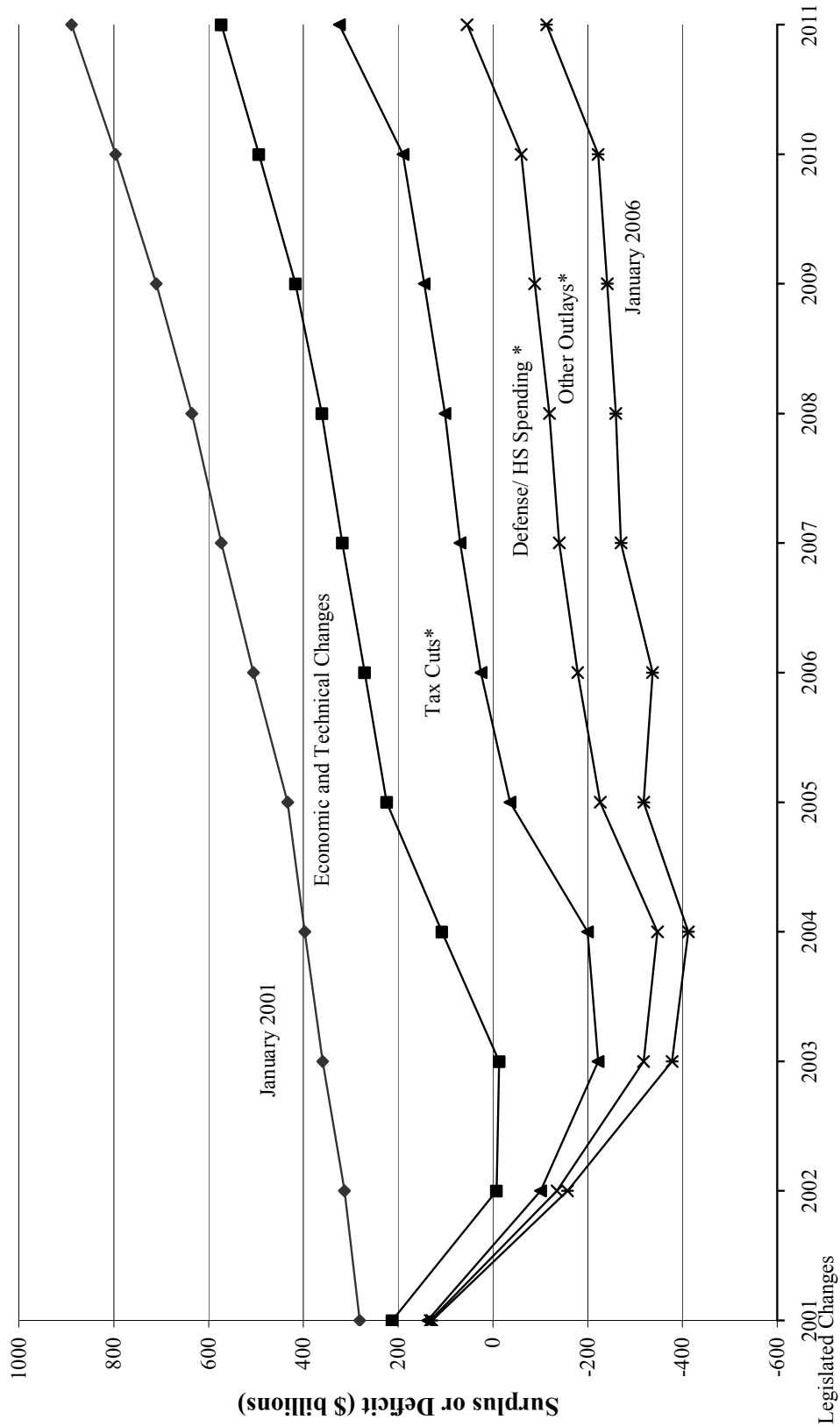


Figure 3
Baseline and Adjusted Budget Outcomes, 2004-2016

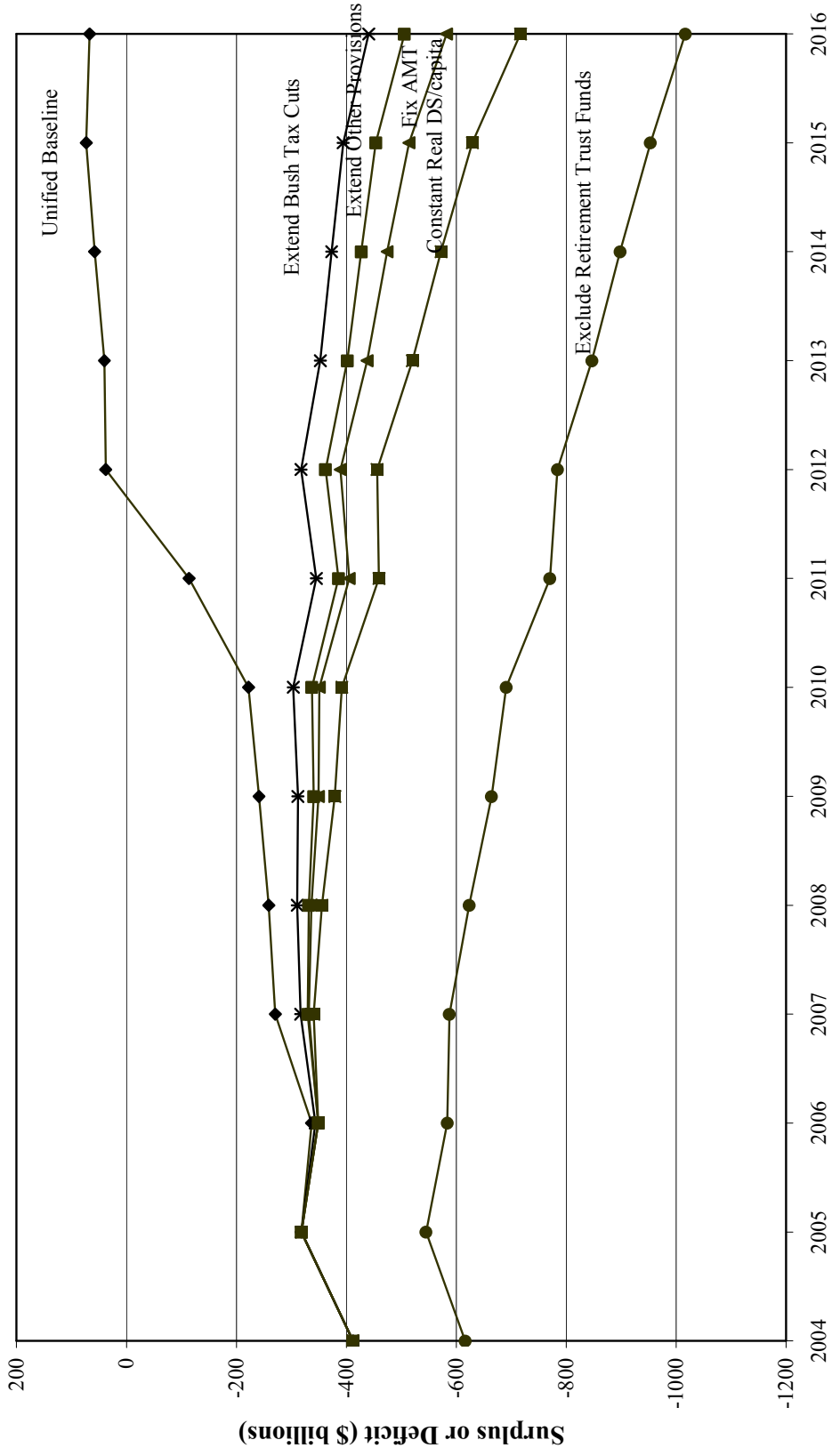


Figure 4
Baseline and Adjusted Budget Outcomes as Share of GDP, 2004-2016

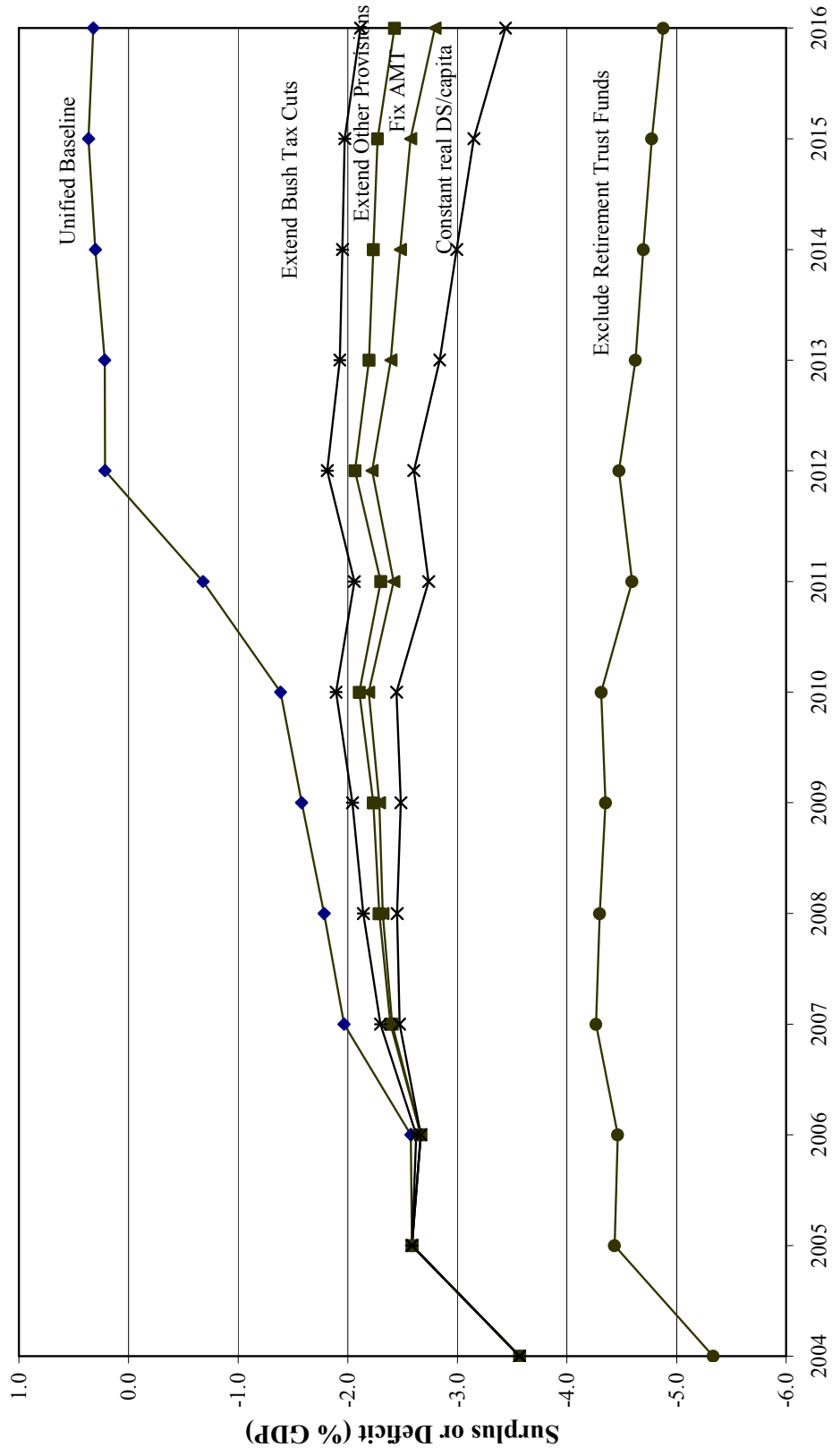
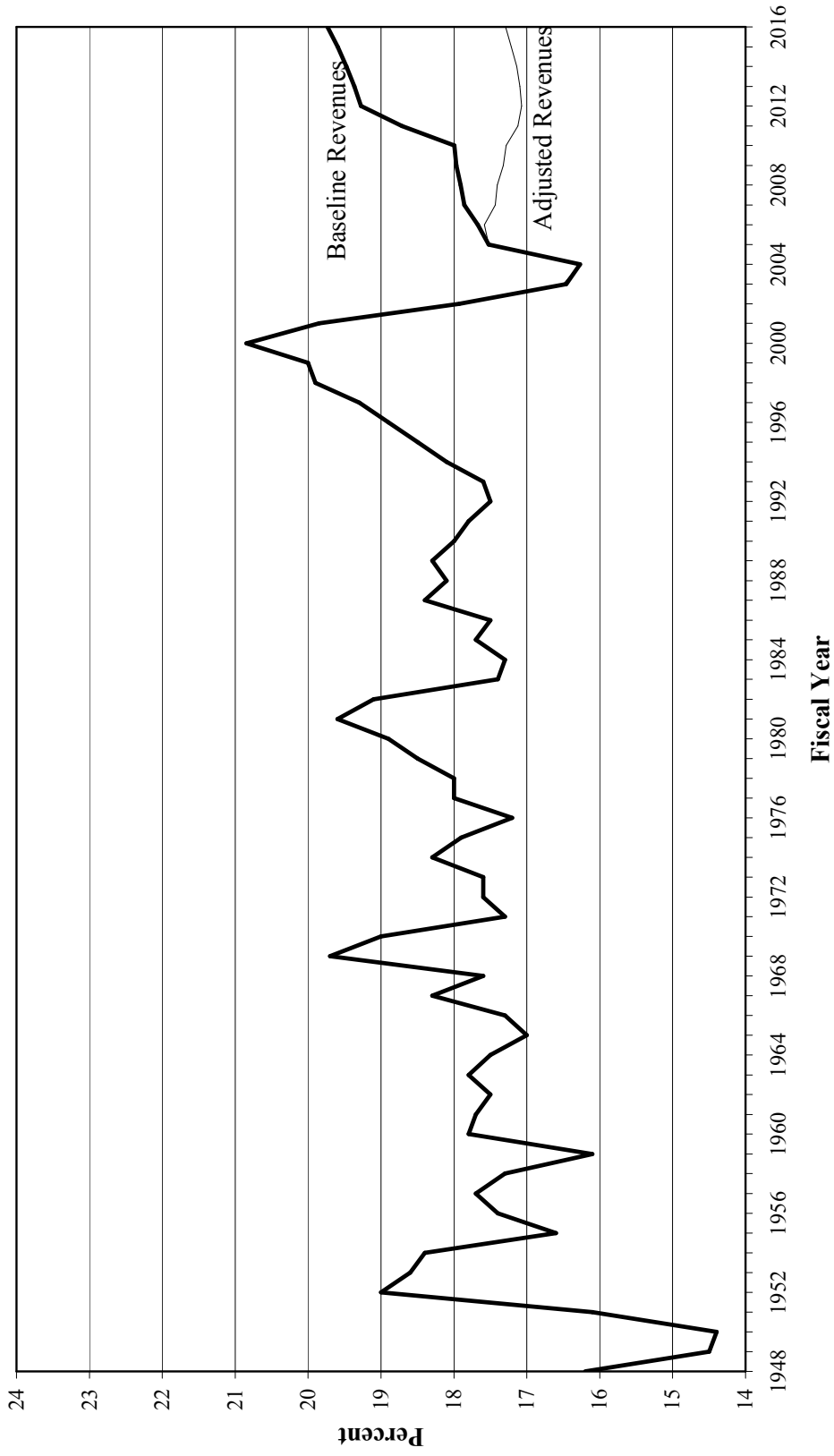
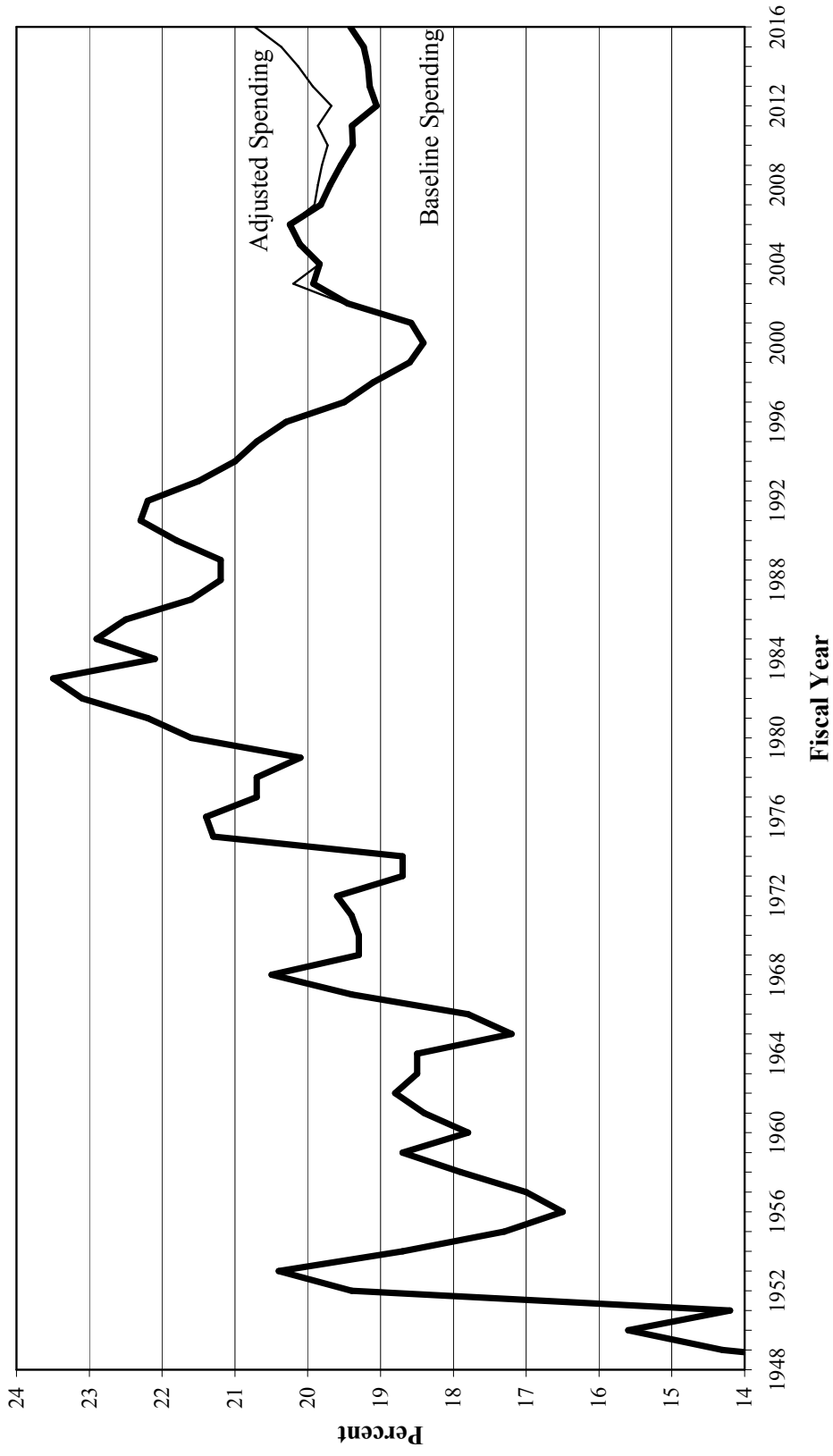


Figure 5
Total Federal Revenues, 1948-2016 (Percent of GDP)



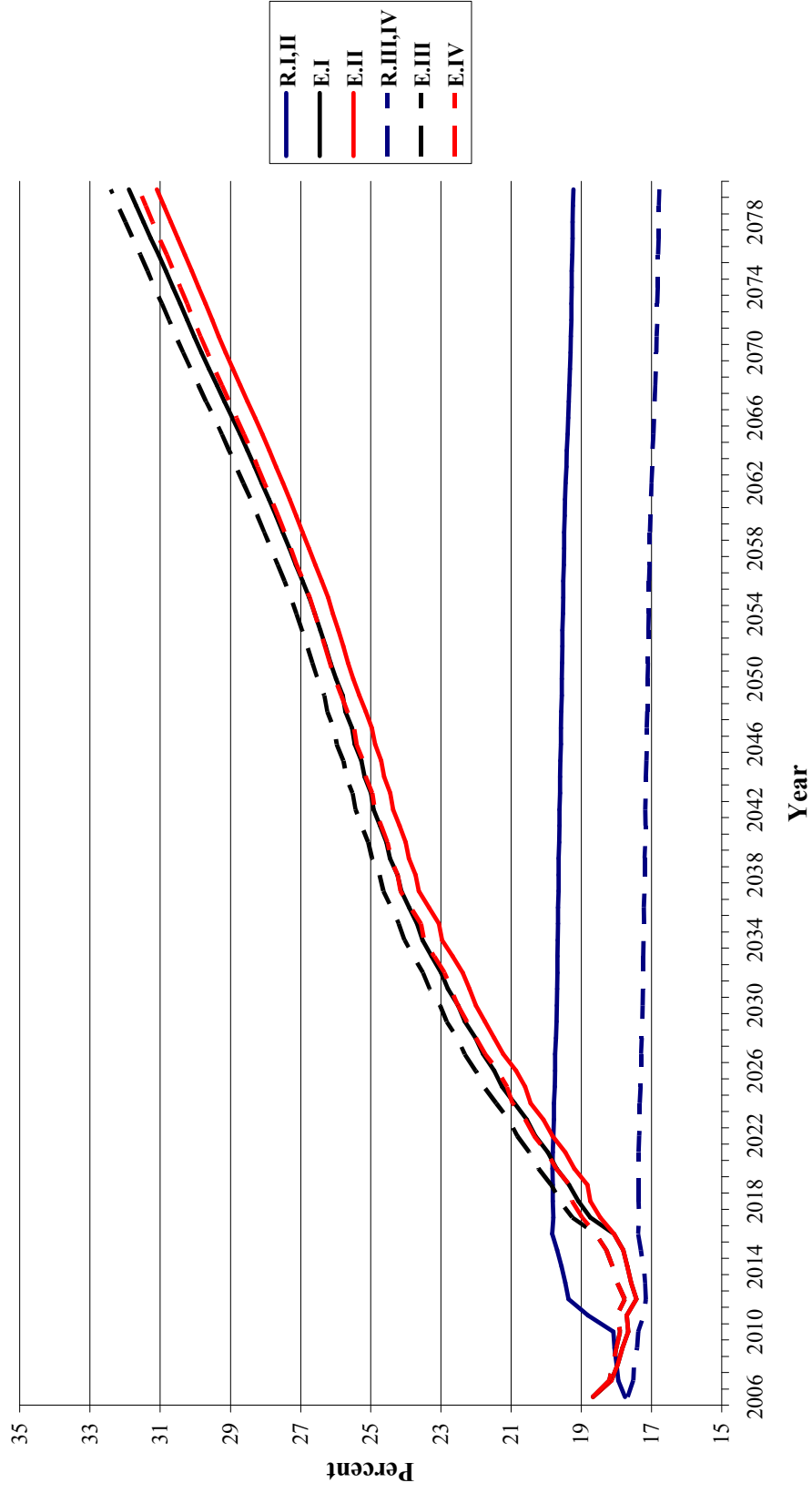
Source: CBO (2006). Authors' calculations.

Figure 6
Total Federal Spending, 1948-2016 (Percent of GDP)



Source: CBO (2006). Authors' calculations.

Figure 7
Revenue and Expenditure Projections (Percent of GDP)



Appendix Table 1
Changing Annual Budget Projections
(Surplus or Deficit in Billions of Current Dollars)¹

	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
<u>Unified Budget</u>															
January 2001 ²	313	359	397	433	505	573	635	710	796	889					
January 2002 ³	-21	-14	54	103	128	166	202	250	294	439	641				
January 2003 ⁴	-158	-199	-145	-73	-16	26	65	103	140	277	451	508			
January 2004 ⁵	-158	-375	-477	-362	-269	-267	-278	-268	-261	-162	-24	-16	13		
January 2004, No Iraq ⁶	-158	-375	-477	-322	-193	-175	-175	-157	-142	-33	113	130	169		
January 2005 ⁷	-158	-375	-412	-368	-295	-261	-235	-207	-189	-80	71	85	115	141	
January 2006 ⁸	-158	-375	-412	-318	-337	-271	-259	-241	-222	-114	38	40	58	73	67
<u>Non-Social Security Budget</u>															
January 2001 ²	141	171	195	212	267	316	359	416	484	558					
January 2002 ³	-184	-193	-141	-108	-99	-76	-56	-24	4	132	319				
January 2003 ⁴	-317	-360	-320	-267	-229	-205	-185	-165	-145	-26	134	177			
January 2004 ⁵	-317	-531	-629	-533	-461	-475	-500	-504	-507	-417	-294	-289	-271		
January 2004, No Iraq ⁶	-317	-531	-629	-494	-385	-383	-398	-393	-387	-288	-157	-142	-115		
January 2005 ⁷	-317	-531	-563	-537	-480	-466	-460	-450	-447	-352	-213	-207	-185	-163	
January 2006 ⁸	-317	-531	-563	-491	-517	-466	-473	-472	-468	-376	-233	-238	-224	-213	-220
<u>Non-Social Security, Non-Medicare Budget</u>															
January 2001 ²	105	132	154	172	223	275	318	377	447	524					
January 2002 ³	-217	-229	-179	-146	-141	-117	-96	-63	-34	95	278				
January 2003 ⁴	-349	-386	-348	-296	-263	-239	-222	-202	-183	-63	95	142			
January 2004 ⁵	-349	-553	-647	-551	-484	-497	-523	-525	-527	-434	-314	-303	-281		
January 2004, No Iraq ⁶	-349	-553	-647	-511	-409	-405	-420	-414	-408	-305	-177	-156	-124		
January 2005 ⁷	-349	-553	-576	-553	-495	-488	-484	-477	-476	-382	-240	-240	-213	-188	
January 2006 ⁸	-349	-553	-576	-505	-533	-479	-488	-487	-482	-385	-248	-244	-224	-205	-185

¹Due to rounding, annual data from Appendix Table 1 may not sum to the CBO totals listed in Table 1.

²Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2002-2011." Tables 1-1 and 1-7.

³Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2003-2012." Tables 1-1 and 1-6.

⁴Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2004-2013." Tables 1-2 and 1-5.

⁵Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2005-2014." Table 1-1.

⁶Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2005-2014." Tables 1-1, 3-5.

⁷Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2006-2015." Table 1-1, supplementary tables.

⁸Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2007-2016."

Appendix Table 2

**Baseline and Adjusted Budget Outcomes for 2000-2016
January 2006 Projections
(Figures in \$ billions)**

	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
CBO Unified Budget Baseline																	
Surplus (or Deficit)	236	127	-158	-375	-412	-318	-337	-271	-259	-241	-222	-114	38	40	58	73	67
Total Revenues	2,025	1,991	1,853	1,782	1,880	2,154	2,312	2,461	2,598	2,743	2,883	3,138	3,378	3,546	3,724	3,912	4,113
Total Spending	1,789	1,864	2,011	2,158	2,292	2,472	2,649	2,732	2,857	2,984	3,105	3,252	3,340	3,506	3,666	3,839	4,046
Net Interest	223	206	171	153	160	184	217	244	263	277	289	299	303	303	302	302	300
Mandatory	951	1,008	1,106	1,179	1,237	1,320	1,432	1,488	1,572	1,667	1,755	1,866	1,935	2,071	2,205	2,350	2,527
Discretionary	615	649	734	825	895	968	999	1,000	1,022	1,040	1,060	1,087	1,103	1,132	1,159	1,186	1,219
Defense	295	306	349	405	454	494	500	498	509	519	531	548	552	570	584	599	618
Non-Defense	320	343	386	420	441	474	499	502	513	521	529	539	551	562	575	587	601
Adjustments to Unified Baseline																	
Surplus (or Deficit)	0	0	0	0	0	0	-12	-70	-97	-138	-170	-345	-494	-560	-630	-702	-784
Total Revenues	0	0	0	0	0	0	-12	-58	-72	-99	-114	-267	-386	-416	-447	-476	-510
Total Spending	0	0	0	0	0	0	0	11	24	39	56	78	108	144	183	226	274
Net Interest	0	0	0	0	0	0	0	2	6	11	19	30	50	74	101	132	166
Mandatory	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Discretionary	0	0	0	0	0	0	0	9	18	28	38	48	58	70	82	94	108
Defense	0	0	0	0	0	0	0	4	9	14	19	24	29	35	41	48	55
Non-Defense	0	0	0	0	0	0	0	5	9	14	19	24	29	35	41	47	53
Adjusted Unified Budget																	
Surplus (or Deficit)	236	127	-158	-375	-412	-318	-349	-341	-356	-379	-392	-459	-456	-520	-572	-629	-717
Total Revenues	2,025	1,991	1,853	1,782	1,880	2,154	2,301	2,403	2,526	2,644	2,769	2,871	2,992	3,130	3,277	3,436	3,603
Total Spending	1,789	1,864	2,011	2,158	2,292	2,472	2,649	2,743	2,881	3,023	3,161	3,330	3,448	3,650	3,849	4,065	4,320
Net Interest	223	206	171	153	160	184	217	246	269	288	308	329	353	377	403	434	466
Mandatory	951	1,008	1,106	1,179	1,237	1,320	1,432	1,488	1,572	1,667	1,755	1,866	1,935	2,071	2,205	2,350	2,527
Discretionary	615	649	734	825	895	968	999	1,009	1,040	1,068	1,098	1,135	1,161	1,202	1,241	1,280	1,327
Defense	295	306	349	405	454	494	500	502	518	533	550	572	581	605	625	647	673
Non-Defense	320	343	386	420	441	474	499	507	522	535	548	563	580	597	616	634	654
GDP	9,715	10,032	10,337	10,829	11,554	12,293	13,082	13,781	14,508	15,264	16,021	16,768	17,524	18,311	19,121	19,963	20,839
	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
CBO Unified Budget Baseline																	
Surplus (or Deficit)	2.4	1.3	-1.5	-3.5	-3.6	-2.6	-2.6	-2.0	-1.8	-1.6	-1.4	-0.7	0.2	0.2	0.3	0.4	0.3
Total Revenues	20.8	19.8	17.9	16.5	16.3	17.5	17.7	17.9	17.9	18.0	18.0	18.7	19.3	19.4	19.5	19.6	19.7
Total Spending	18.4	18.6	19.5	19.9	19.8	20.1	20.2	19.8	19.7	19.5	19.4	19.4	19.1	19.1	19.2	19.2	19.4
Net Interest	2.3	2.1	1.7	1.4	1.4	1.5	1.7	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.6	1.5	1.4
Mandatory	9.8	10.1	10.7	10.9	10.7	10.7	10.9	10.8	10.8	10.9	11.0	11.1	11.0	11.3	11.5	11.8	12.1
Discretionary	6.3	6.5	7.1	7.6	7.7	7.9	7.6	7.3	7.0	6.8	6.6	6.5	6.3	6.2	6.1	5.9	5.8
Defense	3.0	3.1	3.4	3.7	3.9	4.0	3.8	3.6	3.5	3.4	3.3	3.3	3.1	3.1	3.1	3.0	3.0
Non-Defense	3.3	3.4	3.7	3.9	3.8	3.9	3.8	3.6	3.5	3.4	3.3	3.2	3.1	3.1	3.0	2.9	2.9
Primary Spending	16.1	16.5	17.8	18.5	18.5	18.6	18.6	18.1	17.9	17.7	17.6	17.6	17.3	17.5	17.6	17.7	18.0
Adjusted Unified Budget																	
Surplus (or Deficit)	2.4	1.3	-1.5	-3.5	-3.6	-2.6	-2.7	-2.5	-2.5	-2.4	-2.4	-2.7	-2.6	-2.8	-3.0	-3.2	-3.4
Total Revenues	20.8	19.8	17.9	16.5	16.3	17.5	17.6	17.4	17.4	17.3	17.3	17.1	17.1	17.1	17.1	17.2	17.3
Total Spending	18.4	18.6	19.5	19.9	19.8	20.1	20.3	19.9	19.9	19.8	19.7	19.9	19.7	19.9	20.1	20.4	20.7
Net Interest	2.3	2.1	1.7	1.4	1.4	1.5	1.7	1.8	1.9	1.9	1.9	2.0	2.0	2.1	2.1	2.2	2.2
Mandatory	9.8	10.1	10.7	10.9	10.7	10.7	10.9	10.8	10.8	10.9	11.0	11.1	11.0	11.3	11.5	11.8	12.1
Discretionary	6.3	6.5	7.1	7.6	7.7	7.9	7.6	7.3	7.2	7.0	6.9	6.8	6.6	6.6	6.5	6.4	6.4
Defense	3.0	3.1	3.4	3.7	3.9	4.0	3.8	3.6	3.6	3.5	3.4	3.4	3.3	3.3	3.3	3.2	3.2
Non-Defense	3.3	3.4	3.7	3.9	3.8	3.9	3.8	3.7	3.6	3.5	3.4	3.4	3.3	3.3	3.2	3.2	3.1
Primary Spending	16.1	16.5	17.8	18.5	18.5	18.6	18.6	18.1	18.0	17.9	17.8	17.9	17.7	17.9	18.0	18.2	18.5

Appendix Table 3

Baseline and Adjusted Budget Outcomes for 2004-2016
January 2006 Projections
(Surplus or Deficit in \$ billions)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1. CBO Unified Budget Baseline¹	-412	-318	-337	-271	-259	-241	-222	-114	38	40	58	73	67
as percent of nominal GDP	-3.6	-2.6	-2.6	-2.0	-1.8	-1.6	-1.4	-0.7	0.2	0.2	0.3	0.4	0.3
Adjustment for Expiring Bush Tax Cuts													
Extend Estate and Gift Tax Repeal ²	0.0	0.0	0.0	-1.6	-2.1	-1.8	-2.5	-29.8	-54.2	-59.6	-64.8	-68.7	-72.9
Extend Reduced Tax Rates on Dividends and Capital Gains ²	0.0	0.0	0.0	0.0	-1.7	-11.3	-9.9	-24.0	-25.7	-27.7	-29.5	-30.9	-32.5
Extend Other Non-AMT Provisions of EGTRRA, JGTRRA ²	0.0	0.0	0.0	-0.5	-1.4	-1.3	-1.2	-96.3	-174.3	-179.6	-185.0	-187.5	-193.1
Extend AMT Provisions of EGTRRA, JGTRRA ³	0.0	0.0	-6.2	-42.3	-42.8	-50.0	-57.6	-64.1	-70.9	-77.8	-84.9	-92.3	-99.0
Interest ⁴	0.0	0.0	-0.1	-1.4	-3.6	-6.4	-9.9	-17.1	-30.7	-47.9	-66.9	-87.6	-110.1
Subtotal	0	0	-6	-46	-52	-71	-81	-231	-356	-393	-431	-467	-508
as percent of nominal GDP	0.0	0.0	0.0	-0.3	-0.4	-0.5	-0.5	-1.4	-2.0	-2.1	-2.3	-2.3	-2.4
Adjustment for other Expiring Provisions ⁵													
Revenue	0	0	-5	-12	-20	-27	-30	-35	-37	-40	-42	-45	-48
Interest	0	0	0	-1	-1	-2	-4	-6	-8	-10	-12	-15	-18
Subtotal	0	0	-5	-13	-21	-29	-34	-40	-45	-49	-54	-60	-65
Adjustment for All Expiring Tax Provisions (Except Repatriated Dividends)													
Revenue	0	0	-12	-57	-68	-91	-101	-249	-362	-384	-406	-424	-445
Interest	0	0	0	-2	-5	-9	-14	-23	-38	-58	-79	-102	-128
Subtotal	0	0	-12	-59	-73	-100	-115	-272	-400	-442	-485	-527	-573
2. Unified Budget adjusted for expiring tax provisions	-412	-318	-349	-330	-332	-341	-337	-386	-362	-402	-427	-454	-506
as percent of nominal GDP	-3.6	-2.6	-2.7	-2.4	-2.3	-2.2	-2.1	-2.3	-2.1	-2.2	-2.2	-2.3	-2.4
Adjustment for AMT ⁶													
Index AMT	0.0	0.0	0.0	-1.9	-4.7	-8.1	-12.5	-17.9	-24.0	-31.7	-41.0	-51.5	-64.7
Interest	0.0	0.0	0.0	0.0	-0.2	-0.5	-1.0	-1.8	-2.9	-4.3	-6.2	-8.7	-11.9
Subtotal	0	0	0	-2	-5	-9	-14	-20	-27	-36	-47	-60	-77
3. Unified Budget adjusted for expiring tax provisions and AMT	-412	-318	-349	-331	-337	-349	-351	-405	-389	-438	-474	-514	-582
as percent of nominal GDP	-3.6	-2.6	-2.7	-2.4	-2.3	-2.3	-2.2	-2.4	-2.2	-2.4	-2.5	-2.6	-2.8
Adjustment for holding real DS/person constant ⁷													
Hold real DS/person constant	0	0	0	9	18	28	38	48	58	70	82	94	108
Interest	0	0	0	0	1	2	4	6	9	12	16	21	27
Subtotal	0	0	0	9	19	30	41	54	67	82	98	115	134
4. Unified Budget adjusted for expiring tax provisions and AMT with real DS/person constant	-412	-318	-349	-341	-356	-379	-392	-459	-456	-520	-572	-629	-717
as percent of nominal GDP	-3.6	-2.6	-2.7	-2.5	-2.5	-2.5	-2.4	-2.7	-2.6	-2.8	-3.0	-3.2	-3.4
total difference from CBO unified budget baseline as percent of nominal GDP	0	0	-12	-70	-97	-138	-170	-345	-494	-560	-630	-702	-784
	0.0	0.0	-0.1	-0.5	-0.7	-0.9	-1.1	-2.1	-2.8	-3.1	-3.3	-3.5	-3.8
Adjustment for Retirement Funds ⁸													
Social Security	151	173	180	195	214	231	246	262	271	278	282	286	287
Medicare	13	14	16	13	15	15	14	9	15	6	0	-8	-35
Government Pension	40	40	39	39	39	39	39	40	42	43	44	46	48
Subtotal	204	227	235	247	268	285	299	311	328	327	326	324	300
5. Non-retirement fund budget adjusted for expiring tax provisions and AMT with real DS/person constant	-616	-545	-584	-588	-624	-664	-691	-770	-784	-847	-898	-953	-1017
as percent of nominal GDP	-5.3	-4.4	-4.5	-4.3	-4.3	-4.4	-4.3	-4.6	-4.5	-4.6	-4.7	-4.8	-4.9
Nominal GDP ⁹	####	####	####	13781	14508	15264	16021	16768	17524	18311	19121	19963	20839

¹Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2007-2016." January 2006. Summary Table 1.

²Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2007-2016." January 2006. Table 4-10.

³Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2007-2016." January 2006. Table 4-10. The sum of lines "Increased AMT Exemption Amount", "Treatment of Personal Credits under AMT", and "Interaction from Extending All Provision

Appendix Table 4

Public Debt Under Baseline and Adjusted Budget Outcomes for 2004-2016
January 2006 Projections
(in \$ billions)

	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>
1. Public Debt under CBO Baseline ¹	4296	4,592	4,925	5,204	5,477	5,732	5,967	6,092	6,064	6,032	5,981	5,912	5,848
as percent of nominal GDP	37.2	37.4	37.6	37.8	37.8	37.6	37.2	36.3	34.6	32.9	31.3	29.6	28.1
Adjustment for Expiring Bush Tax Cuts	0	0	-6	-46	-52	-71	-81	-231	-356	-393	-431	-467	-508
2. Public Debt adjusted for expiring tax provisions	4296	4592	4931	5256	5581	5907	6223	6579	6907	7267	7647	8046	8489
as percent of nominal GDP	37.2	37.4	37.7	38.1	38.5	38.7	38.8	39.2	39.4	39.7	40.0	40.3	40.7
Adjustment for other Expiring Provisions	0	0	-5	-13	-21	-29	-34	-40	-45	-49	-54	-60	-65
3. Public Debt adjusted for all expiring tax provisions	4296	4592	4937	5274	5620	5975	6325	6722	7094	7504	7938	8396	8904
as percent of nominal GDP	37.2	37.4	37.7	38.3	38.7	39.1	39.5	40.1	40.5	41.0	41.5	42.1	42.7
Adjustment for AMT	0	0	0	-2	-5	-9	-14	-20	-27	-36	-47	-60	-77
4. Public Debt adjusted for expiring tax provisions and AMT	4296	4592	4937	5276	5627	5990	6354	6770	7169	7615	8097	8614	9200
as percent of nominal GDP	37.2	37.4	37.7	38.3	38.8	39.2	39.7	40.4	40.9	41.6	42.3	43.2	44.1
Adjustment for holding real DS/person constant	0	0	0	9	19	30	41	54	67	82	98	115	134
5. Public Debt adjusted for expiring tax provisions and AMT with real DS/person constant	4296	4592	4937	5285	5655	6048	6453	6923	7389	7917	8497	9130	9849
as percent of nominal GDP	37.2	37.4	37.7	38.4	39.0	39.6	40.3	41.3	42.2	43.2	44.4	45.7	47.3
Nominal GDP	11554	12293	13082	13781	14508	15264	16021	16768	17524	18311	19121	19963	20839

¹Congressional Budget Office. "The Budget and Economic Outlook: Fiscal Years 2007-2016." January 2006.