



Policy Brief

Stanford Institute for Economic Policy Research

Sense and Nonsense About Federal Deficits and Debt

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Renewed attention is focusing on the federal government's taxes and spending, deficit and debt. President Bush credits his tax cuts with strengthening the recovery and wants to make them permanent. Senator Kerry condemns the deficit and proposes to raise taxes on "the wealthy" (which includes many small businesses). Former Treasury Secretary Robert Rubin frets over a fiscally induced economic collapse. However, Wall Street yawned when the deficit projections soared. Both Bush and Kerry pledge to cut the deficit in half over the next few years. Kerry would increase health care and other spending, requiring still higher taxes to meet his deficit target, which he says will be his top priority. Bush's budget sharply curtails spending growth, which would require a marked change from his first term. Are large (relative to the size of the economy) federal government deficits good, bad or irrelevant? In fact, they can be each, depending upon circumstances.

The Short Run

Government deficits, more accurately increases in deficits, are not only natural but desirable in recessions and early in recoveries. In a downturn, receipts collapse and spending automatically increases; these so-called automatic stabilizers help cushion the decline in after-tax income and mitigate the swings in economic activity. The impact of the economy on the budget balance is swifter, surer and larger than the impact of the budget balance on the economy. In the severe recession of 1982, these automatic stabilizers accounted for more than half of the then-record deficit. All economists agree we should allow the automatic stabilizers to work. Most, myself included, believe that monetary policy should be the main countercyclical tool. Fiscal policy is too clumsy to use to fine-tune the economy, given usual lags in legislative implementation. The major

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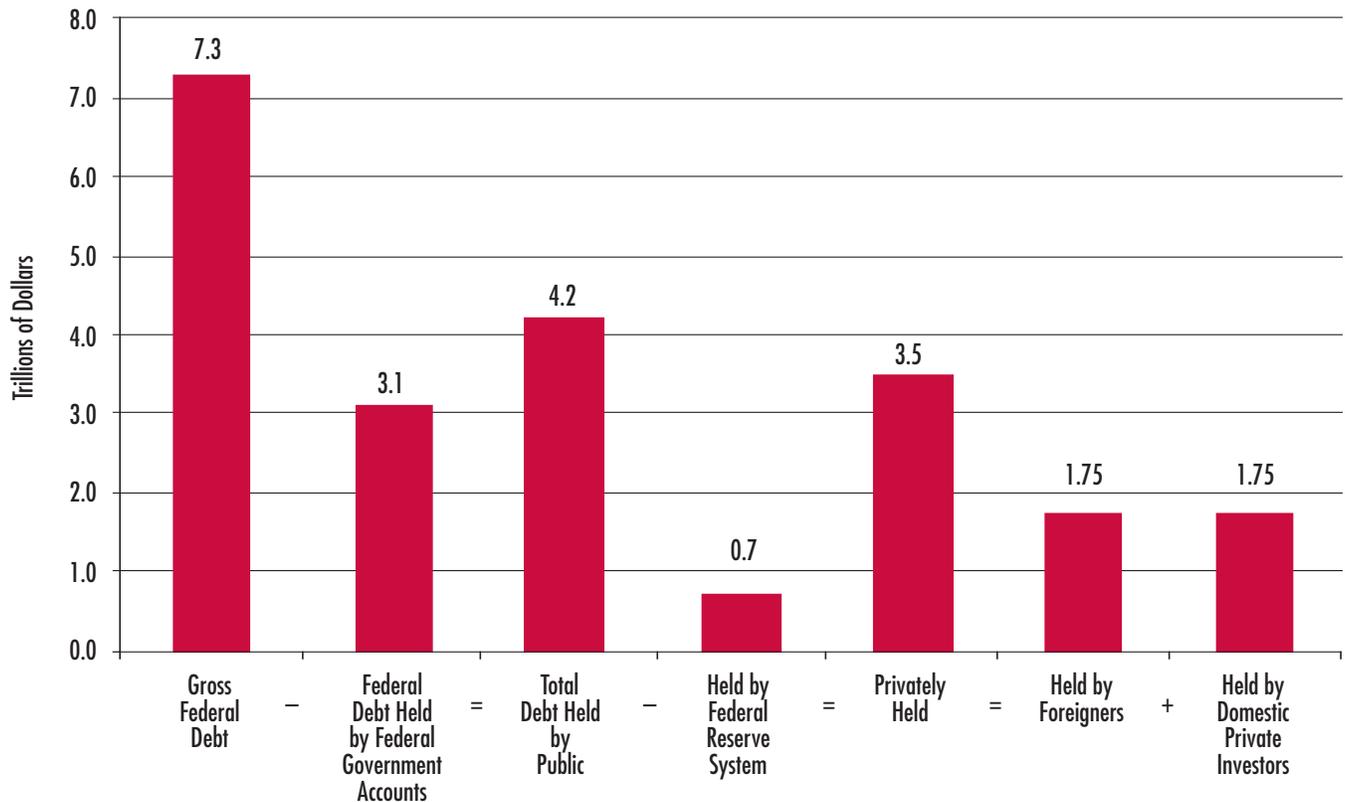
exception occurs when the Fed has lowered short-run interest rates close to zero in a potentially severe downturn. The Fed reduced the federal funds rate to 1.0% in the recent downturn amid serious concern over even the small risk of a Japanese-style deflation and lost decade. Hence, additional fiscal policy insurance was necessary. From 2001 to 2003, the standard measure of short-run fiscal stimulus, the change in *the cyclically adjusted budget deficit*, went from a surplus of 1.1% of GDP to a deficit of 3.1% of GDP, over a 4% swing. One of the largest and best-timed uses of fiscal policy in history, it helped to prevent a much worse downturn; but it would have been better still if the tax rate cuts had been immediate and real spending controls enacted simultaneously to take effect well into the economic expansion.

It is appropriate, but not necessary, to finance (some) long-lived investment by government borrowing, since the benefits will accrue for many years and future taxpayers

might equitably bear part of the burden. This is done routinely by state and local governments. Further, the economic harm caused by taxes rises with the square of tax rates; thus, doubling tax rates quadruples the “deadweight loss” caused because taxes distort economic decisions. It is thus more efficient to keep tax rates stable over time and to debt-finance temporary large spending needs such as military buildups during, or to prevent, war. Indeed, in every year of World War II, government borrowing exceeded tax revenues. Debt finance in this case is both equitable and efficient.

The usual measures of the deficit and debt can be extremely misleading. The deficit is heavily affected by the business cycle. Inflation erodes the value of the previously issued national debt, i.e., the real debt declines with inflation (and conversely increases with deflation). More than half of the debt is held in government accounts or by the Fed (see Figure 1). The federal government has

Figure 1
Holding of the National Debt as of 06/30/2004



many assets as well as debts. These include tangible capital such as buildings, computers and planes; land and mineral rights; inventories; and financial assets. These currently total about \$3.0 trillion, almost equal to the national debt held outside the government. The federal government has other liabilities in addition to the debt, e.g., for federal employees' health and retirement. Further, the government has potential large future unfunded liabilities in Social Security and Medicare (discussed briefly below).

The deficit measures how much the government borrows but does not distinguish whether the borrowing is financing consumption or investment. Unlike private business accounting, there is no capital budget, little accrual accounting and no explicit balance sheet. In short, the budget says nothing about why and for what the added debt is incurred. Only if there were zero inflation, no capital spending, no need for temporary military buildups, no business cycles and no previously issued debt or government assets would a balanced budget mean that current taxes are paying for current real government consumption.

Finally, the deficit is the difference between spending

and taxes, the level, composition and growth of which are the more fundamental fiscal indicators. Surely the United States is better off with our current size government and a small deficit than a European-size government and a balanced budget. Further, even if the U.S. federal budget were "balanced," there would still be a large spending problem, as very few federal programs are target-effective and cost-conscious; virtually all could provide larger net social benefits with less spending. Indeed, the Office of Management and Budget's performance review noted that only 30% of programs had demonstrated even modest effectiveness. This is especially unfortunate since each dollar of federal revenue costs the economy about \$1.30, given the distortions to private decisions caused by the taxes. There is a long way to go to implement even remotely rigorous cost-benefit analysis.

To make sense of these issues, economists employ several related measures in addition to the traditional nominal cash budget balance (see Table 1). The "Standardized Budget Surplus or Deficit" subtracts some transitory items such as deposit insurance outlays and receipts from allies for Desert Storm, the inflation component of interest

Table 1
Alternative Budget Surplus/Deficit Concepts

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1. Unified nominal surplus/deficit = nominal revenues – nominal outlays; "headline" numbers

 2. Operating surplus/deficit = unified deficit – net investment (public capital investment - depreciation of public capital)

 3. Primary surplus/deficit = unified deficit – interest outlays on inherited debt

 4. Cyclically adjusted surplus/deficit: unified deficit adjusted to "high employment," i.e., removes effect (+ and –) of business cycle on revenues and outlays; i.e., removes effect of "automatic stabilizers"

 5. Standardized surplus/deficit: adjusts unified deficit for business cycle and some other transitory items, e.g., the inflation component of interest, receipts from allies for Desert Storm, deposit insurance outlays for failed S&Ls, that are unlikely to affect real income

outlays and the cyclical factor. The primary budget deficit nets out interest, the cost of servicing the previously issued debt. The primary budget balance determines the evolution of the national debt (the present value of future primary surpluses must equal the national debt, net of assets). A balanced primary budget means that current outlays are paid by current revenues, and the inherited debt burden is neither rising nor falling, as the debt grows at about the same rate as the economy.

An operating budget¹ balance nets out public capital investment, from computers to planes, net of depreciation (of course, not all public investment is productive), which is commonly debt-financed by state and local governments. Finally, an expanded operating budget nets out a rough estimate of our most important investment: any systematic national security buildup. Rough balance of a real standardized operating budget implies that, on average over time, additions to the debt burden are only for investment purposes, not to finance current consumption at the expense of future taxpayers, a much more precise measure than the headline nominal budget deficit of what the late Senator Pat Moynihan called “throwing a party.”

For the upcoming 2005 fiscal year, the deficit projected in the President’s budget is roughly \$350 billion, 2.8% of GDP. Current inflation estimates and the interest and maturity structure of the \$4 trillion of publicly held debt imply a decline by about \$75 billion in real value. So the first \$75 billion of the deficit is not a real deficit at all. Another \$135 billion is President Bush’s real homeland security and military buildups. Other federally financed investment outlays net of depreciation are roughly \$70 billion. Thus, netting gets us to a deficit of \$75 billion or

so, a few tenths of a percent of GDP. If there is still some modest cyclical component to the deficit, a real cyclical operating budget would be almost balanced. Given that interest payments are projected to be \$180 billion, roughly half real, half inflation, this means that, net of the investment components of the budget, and adjusting for inflation, President Bush’s budget next year would actually slightly reduce the real burden of the net (of assets) debt. Of course, one could argue that the investments, including the military investments, are not worth it, that their dollar value greatly exaggerates the benefits the investment is leaving to future generations along with any debt, but that is the basis on which the argument ought to occur. While in the long run the economy would be better served with low taxes and less spending, running modest deficits was a reasonable response to war and recession.

If desirable in war and recession, when and how do large deficits become a problem? Large deficits potentially cause two separate but related problems: shifting the bill for financing the current generation’s consumption to future generations and crowding out of private investment. Thus, deficits are more problematic well into a solid economic expansion. They are more of a problem if their impact is to reduce domestic investment and hence future income rather than to raise private saving² or foreign capital imports: They are more likely to be a problem if the level of the national debt, the accumulation of all previous deficits, is high or rapidly rising toward high levels relative to GDP. They are more problematic if they finance consumption, not productive public investment.

Turning to political economy, large deficits are more problematic if they do not constrain future spending or if they

¹ *The federal government does not produce regular operating and capital budgets; these have to be derived from underlying data, as I have done below.*

² *Some economists argue that, given the level of spending, it is irrelevant whether taxes or debt are used to finance it. The argument is that debt implies an equivalent present value of future taxes and that forward-looking consumers will anticipate these higher future taxes and adjust their saving a corresponding amount, so there will be no net wealth effect of government bonds. While most economists, myself included, do not fully accept this view, there may be some private saving offset and this is another reason why crowding out may be less than dollar-for-dollar.*

lead to inflationary monetary policy. None of these conditions appears operative at the moment. If President Bush's budget plan, including both a sharp curtailment of spending growth and making the tax cuts permanent, is implemented, none is likely to occur in the next decade. Of course, this would require President Bush to be much tougher on spending than in the first term. Likewise, if Senator Kerry's proposal to reduce the deficit were put in place, which would require abandonment of most of his plans for federal health care and other spending, none of these conditions would occur either. If Bush got his tax cuts but no spending control, or Kerry his spending plans without even larger tax hikes, the deficits and debt would grow substantially relative to GDP.

It is likewise instructive to probe deeper into the oversimplified budget myths surrounding previous administrations. For example, in 1999, the seventh year of the Clinton Administration, the nominal budget was in surplus to the tune of \$126 billion, or 1.4% of GDP, but the Congressional Budget Office (CBO) estimates that cyclical and temporary items virtually eliminate the surplus. The headline surplus was an artifact of the bubble. A primary surplus indicates progress was being made in reducing the debt burden, but partly by massive military spending cuts (38% relative to GDP). In 1992, the last year of the George H. W. Bush Administration, the nominal budget deficit was \$290 billion, or 4.5% of GDP, but, net of cyclical and temporary items like deposit insurance outlays to finally clean up the S&Ls, the primary budget was roughly balanced. Finally, in 1984, the fourth year of the Reagan Administration, the nominal deficit was \$185 billion, about 4.7% of GDP; but netting cyclical factors, temporary items, the inflation component, net investment and the military buildup, the deficit was just \$8 billion, or 0.2%

of GDP. The real borrowing financed net investment and the military buildup that helped win the Cold War—not mostly current consumption expenditures, not a “party.”

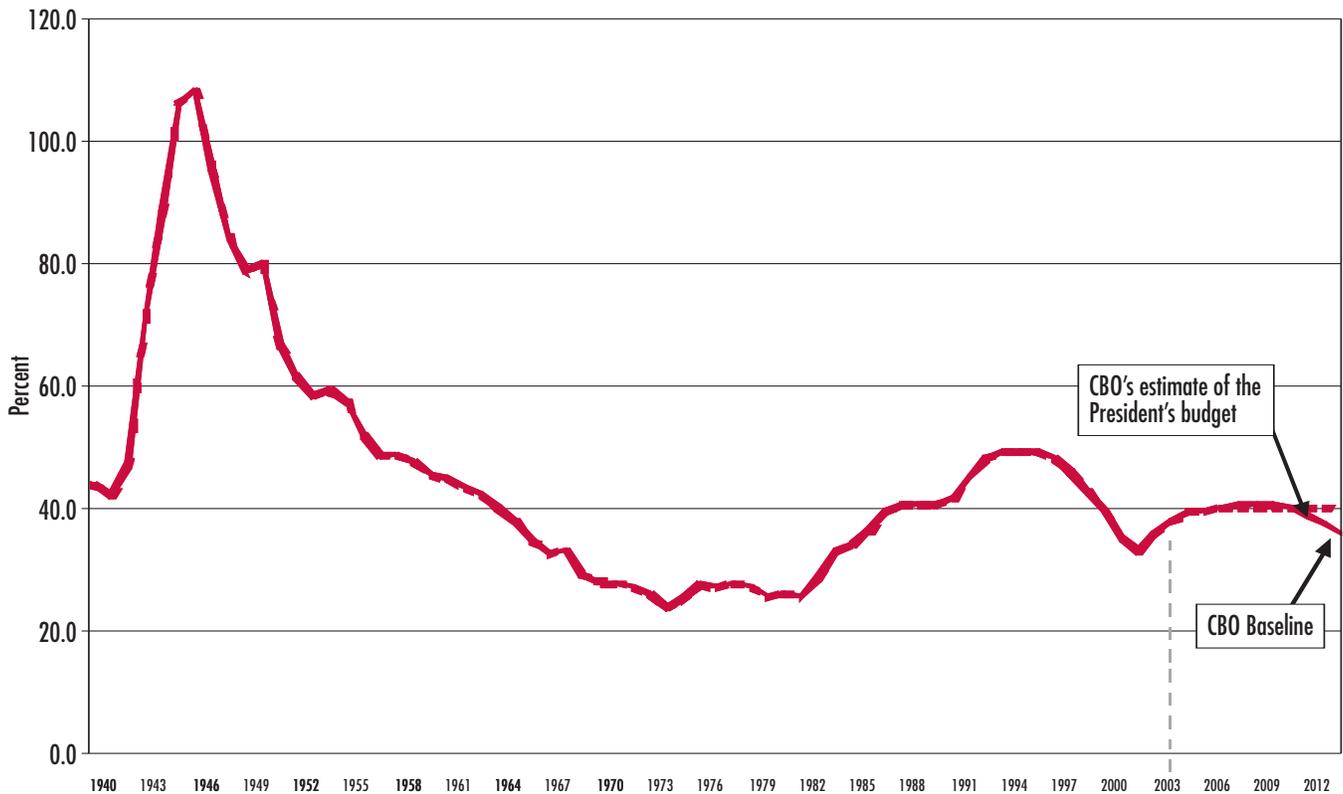
My point here is not to defend or criticize these particular budget outcomes, rather to demonstrate that it is necessary to dig down below the headline deficit numbers to appreciate the real economics of the budget and to demonstrate there is sometimes valid economic justification for large swings in the budget balance.

The Medium Run

The CBO projects gradually declining deficits to almost balance over the next decade and a stable, then declining debt-GDP ratio. For the President's budget, it projects \$2.7 trillion in cumulative additional debt over the next decade. This reflects a debt-GDP ratio that rises slightly to peak at about 40% in two or three years, below the post-World War II historical average and far below Euroland and Japan. It then stabilizes for the rest of the decade through 2014 even as the tax cuts are made permanent, so long as the post-1998 splurge in non-defense discretionary spending is slowed substantially. With interest outlays projected at 2% of GDP, the President's end-of-decade deficit of 1.6% of GDP would actually be a primary surplus of 0.4% of GDP (see Figure 2). This is hardly a debt spiraling out of control, leading to inflation fears fueling a financial crisis and economic calamity. The resulting net deficit will cause a small increase in interest rates. Evidence here is weak, but the best estimate is that interest rates would increase 25bp per 1% of GDP, or 40bp; or less, once any additional feedback effects of rate cuts on revenue and deficits on future spending are included.³ This in turn will reduce domestic investment, but less than dollar-for-dollar, as the deficit will partly be financed

³ Deficits eventually exert some restraint on the course of subsequent government spending, although less than the dollar-for-dollar some imply. The gross historical experience in the late 1990s-2001 at the federal level and in California suggests that running a surplus leads to great pressure for legislatures to spend. Hence, it is unclear that a systematic policy of running budget surpluses, e.g., in anticipation of future fiscal pressures, is even feasible.

Figure 2
Debt Held by the Public as Percentage of GDP



from abroad.⁴ The effect is important, but hardly a cause for hysteria.⁵ Of course, President Bush’s tax cuts and Senator Kerry’s spending increases would likely have ramifications well beyond the next decade, when fiscal pressures will become even more pronounced.

The Long Run

In several decades, the deficits in Social Security and Medicare are expected to be much larger than those projected in the unified budget for the next decade. The long-run deficit projections exceed \$50 trillion in net

present value. These projections may overstate the problem, for several reasons. They assume quite modest long-run annual growth. They project increases in health care outlays far in excess of GDP growth for the better part of a century (the only way that will happen is if the health benefits are sufficient for citizens to want to spend that much). They assume large real benefit increases in Social Security will continue. They assume continuous tax cuts to offset real bracket creep, the AMT and other factors which, under current law, are projected to raise taxes relative to GDP by one-third (compare the four panels

⁴ External debt does not cause a substitution of government bonds for tangible capital in domestic portfolios and hence does not crowd out private investment. There is a concern that foreign holdings of U.S. government securities may be more mobile than domestic holdings and thus pose more risk of an abrupt dislocation.

⁵ The deficits causing a serious inflation or financial and economic collapse scenario would theoretically occur when bond holders reach, or anticipate reaching, an upper limit to the share of their wealth they are willing to hold in government bonds, as might be the case with the debt ratios projected in several decades. There would then be intense pressure on the central bank to monetize the deficit by buying up the bonds. The anticipation of the inflation (alternatively, strong depreciation of the currency) could then lead to a rise in interest rates, reduced capital formation, slower growth, even recession if abrupt enough.

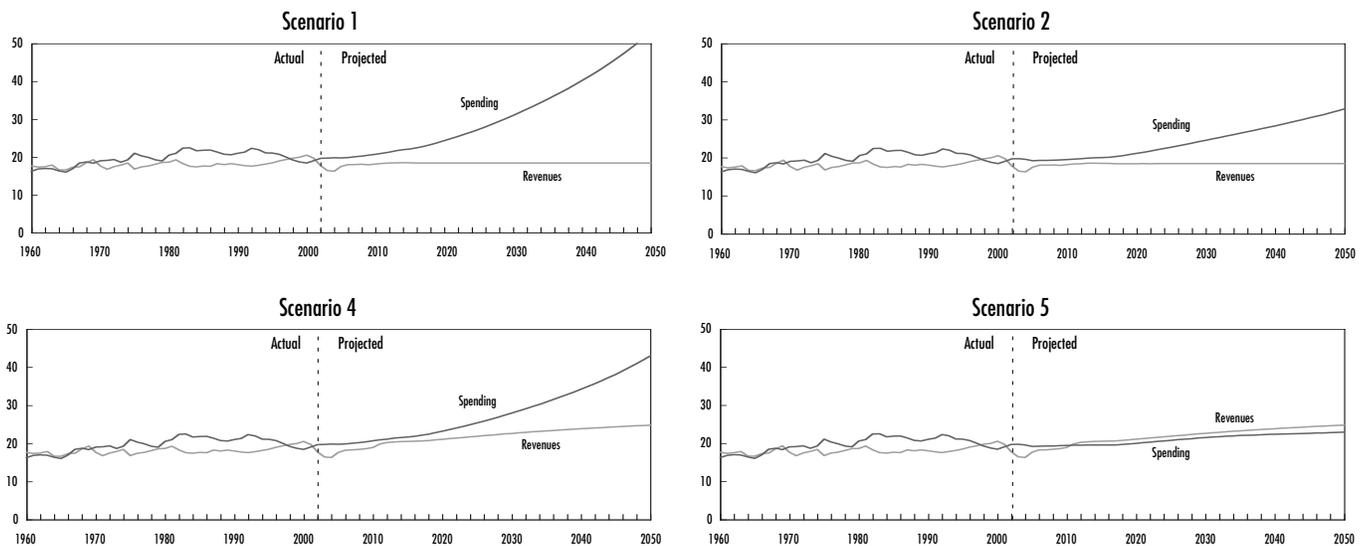
in Figure 3). But even with less stark projections, there would still be large deficits and large tax increases looming which need to be addressed by reducing the growth of spending and by future tax reduction and reform.

While it would be wise to control spending further and actually reduce the debt-GDP ratio over the coming decade, the far more important issue is to put in place, sooner rather than later, some of the common-sense Social Security and Medicare reforms that would gradually and cumulatively address their problems. Such reforms would have little impact on the budget in the next decade. Every year, the potential unfunded accrued liabilities grow, and the fraction of the voters receiving benefits rises relative to those paying taxes, thus making it increasingly difficult to enact the necessary reforms. I will discuss these issues in more detail in a future article.

Finally, economic policy should focus on the denominator as well as the numerator of the debt-GDP ratio. Maximizing non-inflationary growth will require: 1) the lowest possible tax rates; 2) serious spending control; 3) sensible Social Security and Medicare reform; 4) regulatory and litigation reform; 5) trade liberalization; and 6) sound monetary policy.

Properly implemented, such a set of policies would stabilize the debt-GDP ratio at a modest level, except in economic downturns or periods of temporarily large or, conversely, small military spending or other vital public investment. The nominal dollar headline unified budget might still run a “deficit” much of the time, but the true “burden of the debt” would not be rising.

Figure 3
Total Federal Spending & Revenues Under Different Long-Term Budget Scenarios



The main driving assumptions differentiating the scenarios are as follows:
 Scenario 1: revenues flat at 18.4% of GDP; health spending grows 2.5% per year more rapidly than GDP
 Scenario 2: revenues flat at 18.4% of GDP; “excess” health spending 1% per year more than GDP
 Scenario 4: revenues as under current law; real bracket creep and AMT increase to 24.7% of GDP; health spending is 2.5% over GDP Growth
 Scenario 5: current law revenues grow to 24.7% of GDP; excess health spending is 1.0% over GDP growth

Source: CBO, Long-Term Budget Outlook, December 2003

About the Author

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