taxanalysts tax break

by Alan J. Auerbach, William G. Gale, and Peter R. Orszag

Sources of the Long-Term Fiscal Gap

Alan J. 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, 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 Codirector of the Urban-Brookings Tax Policy Center. Peter R. Orszag is the Joseph A. Pechman Senior Fellow at Brookings and Codirector of the Urban-Brookings Tax Policy Center. The authors thank Matthew Hall for outstanding research assistance, and Richard Kogan for helpful comments. 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.

Several previous studies have concluded that the United States faces a substantial long-term fiscal imbalance (CBO 2003, OMB 2004, GAO 2003, Auerbach, Gale, Orszag, and Potter 2003, Gokhale and Smetters 2003). This article extends previous work in two directions.

First, we provide updated estimates of the fiscal gap using projections from the most recent Social Security and Medicare Trustee reports and new CBO projections for Medicaid and other spending. We find that the fiscal gap increased significantly in the past year. Over a permanent horizon, the gap is now in excess of 7 percent of GDP under the CBO baseline and above 10 percent of GDP under an adjusted baseline. This compares to estimates of about 7.5 percent of GDP under the adjusted baseline just a year ago (Auerbach, Gale, and Orszag 2003). About half of the increase in the gap in the past year is due to Medicare changes, with roughly one-fifth due to changes in revenue projections and one-fourth due to higher discretionary spending estimates.[1]

Second, we explore ways to address the question, "What is the source of the fiscal gap?" In a literal sense, the source is simply that projected revenues fall short of projected expenditures. The overall fiscal imbalance is a meaningful concept: It signals that an adjustment of either revenue or expenditure is necessary to avoid an explosion of government debt over the long term. Recent policy discussions, however, have generated interest in allocating the fiscal gap into components. Therefore, we develop and implement alternative frameworks that may be used to evaluate the source of the gap by expenditure category or tax level, and to provide perspectives on informal statements that suggest that the fiscal gap is "due" to one program or another, or to tax cuts.

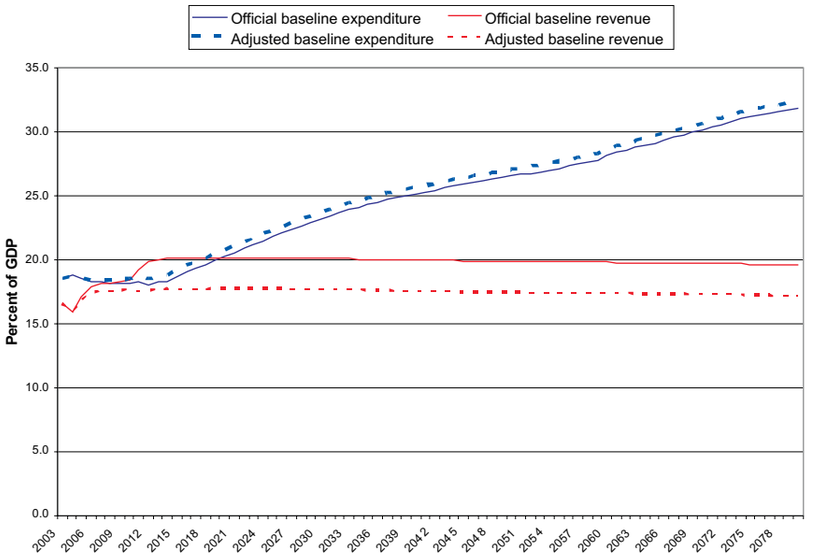
The task is more complicated than it may appear, and it raises serious questions about the value of any attempt to allocate the fiscal gap by budget category. Consider first the relatively straightforward question of how the gap should be allocated across expenditure categories. Most government programs are *intended* to be financed by general revenue and are not fully financed by dedicated revenue streams. Allocating the overall fiscal gap by program therefore requires some assumption, either implicit or explicit, about how future general revenue is to be allocated by budget category. We show that reasonable variations in the assumptions regarding the allocation of future general revenue generate substantially different distributions of programmatic contributions to the fiscal gap, underscoring the inherent ambiguities in attempts to allocate the fiscal gap by programmatic category. For example, if future general revenues are allocated based on the expected present value of spending in each program, then discretionary spending "accounts for" one-third of the long-term fiscal gap, and entitlements two-thirds. If however, future general revenues are allocated based on current spending in each program, entitlements account for more than 100 percent of the shortfall. (If general revenues are not allocated at all, the results are nonsensical.)

The second concern is that allocating the fiscal gap across expenditure programs obscures the role of tax policy. The existence of a fiscal gap in a specific budget category does not necessarily mean that spending on that program is excessive; it merely means that projected future revenue (allocated according to some rule) is insufficient to finance projected future expenditures, and some adjustment to revenues, spending, or both, is therefore required. The concern over how programmatic fiscal gap measures could be misinterpreted arises in particular because a tax cut would be fully reflected in higher fiscal gaps within various expenditure programs under both approaches

[1]The fiscal gap is often expressed in present-value dollars. Our estimated fiscal gap is currently $86 trillion in present value under the adjusted baseline, up from $60 trillion last year (Auerbach, Gale, and Orszag 2003). The gap expressed in present-value dollars is significantly more sensitive to variations in assumptions than is the gap expressed as a share of GDP.

(C) Tax Analysts 2004. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

Figure 1: Noninterest Expenditure and Revenue, 2003-2080



Source: See text.

above (although in different proportions across the programs). That point provides another perspective on the problems with allocating the fiscal gap by program: Although an overall fiscal gap signals the need for a reduction in total expenditure or an increase in total revenue, a programmatic fiscal gap does not necessarily signal the need for changes within that program. Instead, it could signal the need for broader revenue or outlay changes that may be unrelated to the program itself but that would reduce the programmatic fiscal gap.

Despite the possibility that the effect of tax policy changes on programmatic fiscal gaps could be misinterpreted, it is straightforward to calculate the increase in the *overall* fiscal gap attributable to a change in tax policy. We show that the 2001, 2002, and 2003 tax cuts, plus the cost of making the 2001 and 2003 tax cuts permanent, would widen the fiscal gap by 2.2 percent of GDP. How that increase is allocated across spending programs depends crucially on how projected general revenues are allocated to spending programs.

One strong implication of our analysis is that policymakers should be wary of simplistic attempts to claim that the fiscal gap arises solely or mainly because of one or two programs. The logic of the budget constraint and the fact that general revenue is fungible make those statements highly conditional, and our results show how sensitive the pattern of allocating the fiscal gap across programs is to reasonable variations in the assumptions employed.

Section I reports updated fiscal gap calculations. Section II reports projected future expenditures by program. Section III develops two ways of allocating revenues across expenditure programs, and reports the resulting fiscal gaps "by program." Section IV focuses on the role of revenues in the fiscal gap. Section V provides concluding remarks.

I. Updated Fiscal Gap Estimates

As developed by Auerbach (1994) and implemented in subsequent analyses, the "fiscal gap" measures the size of the immediate and permanent increase in taxes and/or reductions in noninterest 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 noninterest expenditures.[2] Likewise, it would establish the same debt to GDP ratio in the long run as holds currently. The gap may be expressed as a share of GDP or in dollar terms. The fiscal gap is an accounting measure intended to reflect the current long-term budgetary status of the government.[3]

We examine two baselines for measuring the fiscal gap: one based on the official Congressional Budget Office (CBO) baseline for the next 10 years and another

[2]Over an infinite planning horizon, the 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), and Congressional Budget Office (2000).

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

(C) Tax Analysts 2004. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

Table 1: Fiscal Gaps				
	Official Baseline		Adjusted Baseline	
	Through 2080	Permanent	Through 2080	Permanent
As percent of GDP	4.60%	7.73%	7.20%	10.47%
In trillions of present-value dollars	$23.1	$63.2	$36.3	$85.5
Source: Authors' calculations.				

based on an adjusted baseline for the next 10 years. More specifically, the "official baseline" follows the March 2004 CBO baseline for the next 10 years (CBO 2004). As emphasized in Auerbach, Gale, Orszag, and Potter (2003), and Gale and Orszag (2004), that official baseline is unrealistic in many respects. It assumes that the sunsets in the 2001 and 2003 tax cuts are enforced, that the number of tax-return filing units on the alternative minimum tax rises from about 3 million today to about 30 million by 2010, and that real discretionary spending per capita declines by 8 percent by 2014. Our "adjusted baseline" instead assumes that, with the exception of the bonus depreciation provision included in the 2003 legislation, all of the provisions of the 2001 and 2003 tax cuts are extended beyond their official sunsets, other expiring tax provisions are extended, the AMT is reformed to prevent a massive increase in the number of taxpayers subject to it,[4] and real discretionary spending per capita is held constant.

Our assumptions after the first decade are similar under the official baseline and the adjusted baseline. In particular, we assume that Social Security and Medicare spending follow the intermediate cost projections of their respective trustee reports; Medicaid spending is based on Scenario 2 from CBO's most recent long-term projections (CBO 2003);[5] and income taxes, discretionary spending, and other entitlements remain constant as a share of GDP after 2014 (although those shares differ between the two baselines).[6]

Figure 1 shows total noninterest expenditure and revenue under both baselines through 2080. As the figure shows, the principal difference between the two baselines is on the revenue side, with revenue roughly 2.5 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 1) plus the current value of the public debt.

Under the official baseline assumptions, we estimate that the fiscal gap through 2080 is now 4.6 percent of GDP (Table 1).[7] That implies that an immediate and permanent increase in taxes or cut in spending of 4.6 percent of GDP — or almost $500 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 those assumptions amounts to $23 trillion.

The fiscal gap is greater under the adjusted baseline because that baseline 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 7.2 percent of GDP, or 2.6 percent of GDP more than under the official baseline. In present-value dollars, the fiscal gap under this baseline amounts to $36 trillion through 2080.

The fiscal gap is even larger if the time horizon is extended, because 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 7.7 percent of GDP under the official baseline and 10.5 percent of GDP under the adjusted baseline. In present-value dollars, the fiscal gap over an infinite horizon is estimated at $63 trillion under the official baseline and $86 trillion under the adjusted baseline.

The required adjustments represent substantial shares of current spending or revenue aggregates. A fiscal adjustment of 7.7 percent of GDP, for example, translates into a reduction in spending of 29 percent or an increase in revenues of 40 percent.

Because the fiscal gap measures the size of the required *immediate* fiscal adjustment, the required adjustment also rises if action is delayed. For example, if no actions were taken until 2014, the required adjustment rises from 7.7 percent to 8.8 percent of GDP under the official baseline.

[4]Under current law, the AMT exemption for married couples filing jointly is $58,000 in 2003 and 2004, and falls to $45,000 in 2005. We assume that, starting in 2005, the AMT exemption for couples filing jointly is maintained at $58,000 and indexed for inflation. We also continue to allow nonrefundable credits to be claimed under the AMT and allow dependent exemptions under the AMT. In 2010 the result is that roughly 3 million return filings are on the AMT.

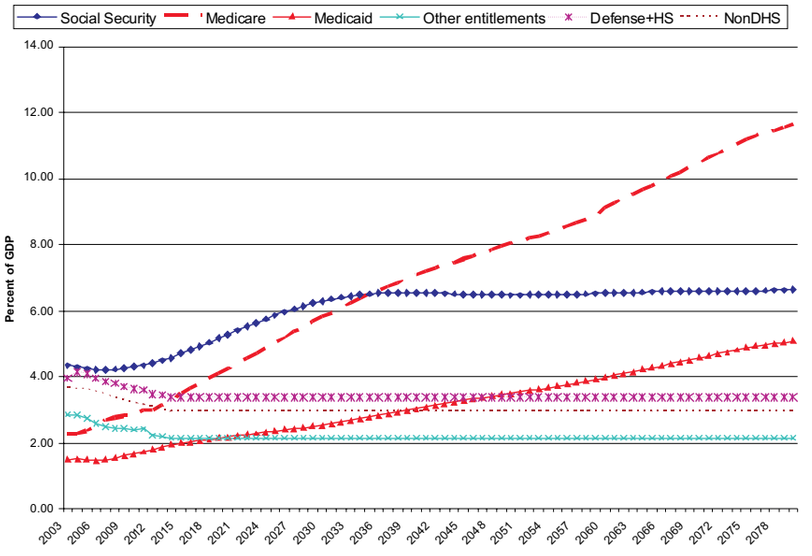
[5]Scenario 2 assumes that medical costs per beneficiary increase at 1 percent per year faster than per capita GDP growth, which is the same long-term assumption made in the Medicare trustees' projections. The CBO projections end in 2050. We assume that Medicaid spending grows after 2050 at the same rate as Medicare.

[6]Note that tax revenue, discretionary spending, and other entitlements may not automatically remain a constant share of GDP after 2014 without further policy interventions. We assume any necessary policy adjustments to maintain these constant shares.

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

(C) Tax Analysts 2004. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

Figure 2: Projected Expenditures by Budget Category



Source: See text.

II. Expenditures by Program

Our second goal is to examine sources of the fiscal gap. A useful first step is to examine the projected budgetary expenditures of different government programs as a share of GDP. These figures do not require addressing the problems associated with allocating general revenue by program that will be the focus of our attention below.

We divide the primary (noninterest) expenditures into mutually exclusive and exhaustive categories: Social Security; Medicare (including parts A, B, and D);[8] Medicaid; other entitlements; defense and homeland-security discretionary spending; and nondefense, non-homeland-security discretionary spending. Figure 2 shows the projected increase in federal spending in each of those budget categories under our official baseline assumptions. (The trends under the adjusted baseline are similar; the only difference is that discretionary spending does not decline as much relative to GDP in the first decade.)

As the figure shows, Social Security, Medicare, and Medicaid are expected to increase markedly as a share of GDP in the future. The expenditures associated with those three programs amount to about 8 percent of GDP in 2004; they are expected to total almost 15 percent of GDP by 2030 and 23 percent of GDP by 2080 (Table 2). Put another way, those three programs currently represent 43 percent of total noninterest federal expenditures. By 2080, they are expected to represent 73 percent of total noninterest federal expenditures.

The figure also shows, however, that the time profiles of Medicare and Medicaid expenditures are quite different from those of Social Security. For Social Security, costs increase by roughly 2 percent of GDP between today and 2030; subsequently, they increase only slowly as a share of GDP. By contrast, Medicare and Medicaid costs are projected to continue increasing rapidly as a share of GDP under current policies even after 2030. Table 2 shows that Medicare and Medicaid are projected to increase by a stunning 13 percent of GDP between 2004 and 2080; Social Security is projected to increase by 2.3 percent of GDP. The common practice of combining those programs is thus problematic, because it obscures the very different trends projected for the healthcare programs.

Table 3 shows total spending in each budgetary category through 2080 and over an infinite horizon, both as a share of GDP and in trillions of present-value dollars. Entitlement programs account for roughly three-fourths of projected noninterest expenditures in present value; discretionary spending accounts for roughly one-fourth.

III. Allocating the Fiscal Gap by Budget Category

Many analysts and policymakers have become interested in moving beyond the overall fiscal gap and beyond a simple examination of programmatic expenditures to an analysis of fiscal gaps or "unfunded liabilities" *within* different budgetary categories. For example, Sen. Joseph I. Lieberman, D-Conn., has advocated calculating an unfunded budget commitment by

[8]Medicare spending is net of offsetting receipts.

(C) Tax Analysts 2004. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

Table 2: Expenditures in Selected Program and Years as Percent of GDP			
	Social Security	**Medicare***	**Medicaid**
2004	4.3%	2.3%	1.5%
2010	4.3%	2.9%	1.7%
2030	6.3%	5.8%	2.5%
2050	6.5%	8.0%	3.5%
2080	6.6%	11.6%	5.1%
*Net of premiums. *Source*: Authors' calculations.			

Table 3: Expenditures by Program				
	Percent of GDP		**Present-Value Dollars ($ trillion)**	
	Through 2080	**Infinite Horizon**	**Through 2080**	**Infinite Horizon**
Social Security	5.8%	6.1%	29.3	50.0
Medicare	6.3%	8.3%	31.7	68.1
Medicaid	2.9%	3.7%	14.6	30.5
Other entitlements	2.2%	2.2%	11.2	18.0
Defense and homeland security discretionary	3.5%	3.4%	17.4	28.0
Nondefense, nonhomeland-security discretionary	3.1%	3.0%	15.4	24.7
Total	23.7%	26.9%	119.6	219.4
Source: Authors' calculations.				

Table 4: 'Fiscal Gaps' by Program, Official Baseline, Allocating Only Dedicated Revenue				
	Percent of GDP		**Present-Value Dollars ($ trillion)**	
	Through 2080	**Infinite Horizon**	**Through 2080**	**Infinite Horizon**
Social Security	0.9%	1.4%	4.7	11.2
Medicare	4.8%	6.9%	24.1	56.1
Medicaid	2.9%	3.7%	14.6	30.5
Other entitlements	1.8%	1.8%	9.3	14.9
Defense and homeland security discretionary	3.5%	3.4%	17.4	28.0
Nondefense, nonhomeland-security discretionary	3.1%	3.0%	15.4	24.7
General revenue, not allocated	-12.4%	-12.5%	-62.3	-102.2
Total	4.6%	7.7%	23.1	63.2
Source: Authors' calculations.				

program. According to a press release from his office, this unfunded commitment by program "is the net of the revenue for the program (payroll taxes and premiums) compared to the benefits to be paid out — the shortfall being the unfunded commitment. The present value of this shortfall is the amount we would need today to fund the commitment over time."[9]

The major challenge in computing a fiscal gap for each budgetary category is the treatment of general revenue — that is, revenue that is not specifically dedicated to a program. Several recent analyses, including that of Sen. Lieberman, exclude general revenue altogether. Under that approach, the fiscal gap for each program is calculated as projected expenditure minus *dedicated* revenue. A program's dedicated revenue is defined as payroll tax revenues accruing to that program plus revenue from the income taxation of program benefits.[10] Table 4 shows the resultant fiscal gap by program under this approach for the official baseline assumptions.[11]

[9]"Lieberman Applauds Medicare and Social Security Trustees Report Using Accounting Method Showing $72 Trillion in Unfunded Commitments," March 23, 2004.

[10]Our measure of payroll revenue includes the employer share of payroll taxes for federal employees. CBO excludes that revenue from payroll revenue; SSA includes it.

[11]We allocate non-Social Security and non-Medicare payroll tax revenue to "other entitlements," and the costs associated with the existing public debt to general revenue.

(C) Tax Analysts 2004. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

Table 5: Fiscal Gaps by Program, Official Baseline, Present-Value Allocation Method				
	Percent of GDP		Present-Value Dollars ($ trillion)	
	Through 2080	Infinite Horizon	Through 2080	Infinite Horizon
Social Security	0.3%	0.5%	1.3	4.3
Medicare	1.3%	2.6%	6.5	21.4
Medicaid	0.8%	1.4%	3.9	11.6
Other entitlements	0.5%	0.7%	2.5	5.7
Defense and homeland security discretionary	0.9%	1.3%	4.7	10.7
Nondefense, nonhomeland-security discretionary	0.8%	1.2%	4.2	9.4
Total	4.6%	7.7%	23.1	63.2
Source: Authors' calculations.				

The flaws in the approach are immediately apparent in Table 4. First, because general revenue is not allocated to each budget category, the fiscal gap totaled over all spending programs is substantially larger than the overall fiscal gap. Indeed, "general revenue" under this approach runs a massive projected surplus, amounting to more than 12 percent of GDP (or more than $100 trillion in present value) over an infinite horizon. Second, any program without dedicated revenue is by construction running a long-term deficit under this approach.

The approach adopted in Table 4 makes it easy for proponents of different policy persuasions to present the budget outlook in potentially misleading ways. For example, those who want to preserve the entitlement programs could point to discretionary spending and argue that 83 percent of the overall fiscal gap over an infinite horizon is due to discretionary spending ($53 trillion out of a total of $63 trillion). This statement could easily be interpreted to mean that outside discretionary spending, the budget is in relatively good shape. On the other hand, those who believe that the costs associated with the entitlement programs must be reduced to restore long-term fiscal balance could just as reasonably argue that entitlements more than explain the overall fiscal gap, which could easily be interpreted to mean that the budget outside entitlements is in surplus. Also, the table suggests that a $1 increase in dedicated taxes helps to reduce the fiscal gap while $1 of general revenue does not. For example, if all general revenue were suddenly converted to dedicated revenue (and spread across programs), the fiscal gap in the various programs would fall dramatically, using the methodology that generates Table 4.

The problem is that many government programs are *supposed* to be financed by general revenue. Failing to allocate tens of trillions in such revenue in present value is thus likely to create a misleading impression regarding the programmatic contributions to the fiscal gap. The challenge, then, is to allocate the available general revenue in a sensible fashion. Any allocation is somewhat arbitrary, but failing to adopt any allocation at all is not a reasonable solution to the problem. For many policy analysts, the arbitrary nature of the allocation process will raise serious questions about the value of the exercise of dividing the fiscal gap by source. But if analysts are going to undertake such programmatic fiscal gap calculations, it makes sense to allocate future general revenue in some way.

Below, we adopt two straightforward ways to allocate available general revenue to each program. In the first approach, general revenue is allocated in proportion to projected expenditure minus projected dedicated revenue for each program in present value. In other words, general revenue is allocated in proportion to the programmatic fiscal gaps shown in Table 4 (for the official baseline). If program X represents Y percent of the sum of the programmatic fiscal gaps taking into account only dedicated revenue, it is allocated Y percent of available general revenue in present value. We call that approach the "present value allocation" method. In the second approach, we allocate available general revenue in proportion to the difference between expenditure in 2004 and dedicated revenue for each budget category in 2004. We call this approach the "current" allocation method.[12]

The logic of the present value allocation method is that it distributes the available general revenue in proportion to the demands that will be put on general revenue over the projection period. That approach, however, means that an increase in future costs in program X widens the fiscal gaps in all other budgetary categories, since more general revenue is allocated to program X. That does not occur under the current allocation method, which provides more insight into which programs are increasing in cost relative to today's costs.[13]

A. Present Value Allocation Method

Table 5 shows that under the present value allocation method and the official baseline, the fiscal gap attributable to Social Security and Medicare amounts

[12]One practical problem with this method is that Social Security expenditure is currently lower than dedicated revenue, so that allocating future general revenue to Social Security in proportion to the difference between expenditure and dedicated revenue would not make sense. In the current allocation method, we therefore assign no future general revenue to Social Security.

[13]One could also apply this method using a different base year, to evaluate changes relative to that year.

(C) Tax Analysts 2004. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

Table 6: Fiscal Gaps by Program, Alternative Baseline, Present-Value Allocation Method				
	Percent of GDP		Present-Value Dollars ($ trillion)	
	Through 2080	Infinite Horizon	Through 2080	Infinite Horizon
Social Security	0.4%	0.7%	2.0	5.6
Medicare	2.0%	3.5%	9.9	28.3
Medicaid	1.2%	1.9%	6.0	15.4
Other entitlements	0.8%	0.9%	3.8	7.5
Defense and homeland security discretionary	1.5%	1.9%	7.7	15.2
Nondefense, nonhomeland-security discretionary	1.4%	1.6%	6.8	13.4
Total	7.2%	10.5%	36.3	85.5
Source: Authors' calculations.				

Table 7: Fiscal Gaps by Program, Official Baseline, Current Allocation Method				
	Percent of GDP		Present-Value Dollars ($ trillion)	
	Through 2080	Infinite Horizon	Through 2080	Infinite Horizon
Social Security	0.9%	1.4%	4.7	11.2
Medicare	3.9%	6.0%	19.8	49.1
Medicaid	1.4%	2.2%	7.1	18.2
Other entitlements	-0.5%	-0.6%	-2.7	-4.7
Defense and homeland security discretionary	-0.6%	-0.7%	-3.1	-5.6
Nondefense, nonhomeland-security discretionary	-0.5%	-0.6%	-2.7	-5.0
Total	4.6%	7.7%	23.1	63.2
Source: Authors' calculations.				

Table 8: Fiscal Gaps by Program, Alternative Baseline, Current Allocation Method				
	Percent of GDP		Present-Value Dollars ($ trillion)	
	Through 2080	Infinite Horizon	Through 2080	Infinite Horizon
Social Security	0.9%	1.4%	4.7	11.2
Medicare	4.1%	6.2%	20.5	50.4
Medicaid	1.7%	2.5%	8.4	20.4
Other entitlements	-0.1%	-0.2%	-0.6	-1.2
Defense and homeland security discretionary	0.3%	0.3%	1.7	2.6
Nondefense, nonhomeland-security discretionary	0.3%	0.3%	1.5	2.2
Total	7.2%	10.5%	36.3	85.5
Source: Authors' calculations.				

to about $8 trillion through 2080 and about $26 trillion over an infinite horizon. The three main entitlement programs — Social Security, Medicare, and Medicaid — account for about half the overall fiscal gap through 2080 and slightly more than half the overall fiscal gap over an infinite horizon. Discretionary spending also shows a significant fiscal gap. Indeed, it accounts for more of the fiscal gap through 2080 than Social Security and Medicare combined.

Comparing Tables 5 and 6 shows that the fiscal gap increases in *every* programmatic category under the alternative baseline, even though there is no change in mandatory outlays or receipts. The reason is that discretionary spending is higher and general revenue is lower relative to the official baseline, increasing the fiscal gap within discretionary spending, which allocates a higher share of general revenue to discretionary spending and reduces the overall level of available general revenue. Both the reduced share of revenue and the lower level of revenue increase the fiscal gap attributable to nondiscretionary programs.

B. Current Allocation Method

Tables 7 and 8 show the fiscal gaps under the official and adjusted baselines, respectively, when future general revenue is allocated in proportion to *current* general revenue needs rather than present-value general revenue needs. The result is to attribute much more of the overall fiscal gap to the three largest entitlement programs, whose costs increase markedly in the future. In other words, the current costs of the three major entitlement programs are low relative to their future costs, so they are allocated relatively less general revenue under the current allocation method than under the present-value allocation method.

(C) Tax Analysts 2004. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

(C) Tax Analysts 2004. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

Table 9: Revenue Effect of Tax Cuts, 2001-14 ($ billion)

Fiscal Year	TPC Estimate Against Official Baseline	TPC Estimate Against Baseline With Reformed AMT	JCT/CBO Estimate Against Official Baseline	Estimated Revenue Effect Against Baseline With Reformed AMT	JCT/CBO Estimates of Other Provisions	Total
	(1)	(2)	(3)	(4) (=(2)/(1)*(3))	(5)	=(4)+(5)
	Income and Estate Tax Changes, Without Timing Shifts and AMT Changes				Bonus Depreciation and Section 179	
2001	57	56	41	40	0	40
2002	74	72	71	68	35	104
2003	167	161	131	127	44	171
2004	182	176	223	216	65	281
2005	172	200	185	214	15	230
2006	185	207	158	177	-24	153
2007	190	217	167	191	-24	167
2008	205	239	175	204	-20	184
2009	207	248	193	231	-16	216
2010	234	284	212	257	-11	247
2011	241	300	292	363	-7	357
2012	249	317	270	344	-3	340
2013	255	334	282	370	0	369
2014	263	353	298	400	3	403

Source: Author's calculations.
Note: Table shows the revenue effect of the 2001, 2002, and 2003 tax cuts, plus the effect of extending the 2001 and 2003 tax cuts except for the bonus depreciation provision.

A comparison of Tables 5 and 7 shows that the fiscal gaps within both Social Security and Medicare are more than twice as large under the current allocation method than under the present-value allocation method. Indeed, whereas Table 5 suggests that only about half the overall fiscal gap through 2080 is attributable to Social Security, Medicare, and Medicaid, Table 7 suggests that these programs explain more than the entire fiscal gap. Medicare and Medicaid are particularly important, with Medicare alone showing a fiscal gap through 2080 of almost $20 trillion.

Under the current allocation method for the official baseline, Table 7 shows that other entitlements, defense and homeland security, and other discretionary spending are all projected to run modest surpluses. The reason is that expenditures in those categories decline as a share of GDP under the official baseline over the next 10 years, and those reduced shares of GDP are then projected forward thereafter. Because the general revenue allocations are based on current costs, those categories are allocated more general revenue in the future than they are projected to cost.

Table 8 shows that under the adjusted baseline, discretionary spending is instead projected to run a small deficit. The basic picture from Table 8 is similar to that from Table 7: The fiscal gap under the current allocation method is almost entirely due to entitlement programs, with Medicare and Medicaid looming particularly large.

IV. Revenues and the Fiscal Gap

In this section, we focus on how the recent tax cuts and making the 2001 and 2003 tax cuts permanent would affect the level of the fiscal gap and the allocation of the gap across budgetary categories. Besides the specific figures reported below, the key point is that either of the approaches used above would show tax cuts as increasing the fiscal gap attributed to particular spending programs. That does not imply that the actual, projected, or optimal level of spending on those programs changed, just that revenues fell.

One complication in evaluating the effect of the 2001 and 2003 tax cuts is their interactions with the AMT. The AMT was projected to grow substantially over time even before the 2001 and 2003 tax cuts were enacted, mostly because the AMT is not indexed to inflation. If the AMT had been reformed before the tax cuts were enacted, the cost of the tax cuts would have been higher (since taxpayers pay the higher of their regular income tax liability or AMT liability, the AMT under current law effectively cancels an increasing share of the tax cuts over time). (Burman, Gale, and Rohaly) (2003). We therefore evaluate the 2001 and 2003 tax cuts relative to a baseline in which the AMT has been reformed.[14]

In particular, we use the Tax Policy Center (TPC) model to estimate the combined revenue effect of the

[14]Another approach would be to calculate the additional revenue cost of keeping the AMT on its pre-2001 trajectory, in terms of revenue and the number of taxpayers subject to it. Like the approach we use, this alternative approach would undo the AMT offsets to the 2001 and 2003 tax cuts. The approaches differ only in the assumed AMT baseline and should yield similar results. We chose the prior-reform AMT baseline because the calculations involved are more straightforward.

(C) Tax Analysts 2004. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

Table 10: Effects of Tax Cuts on Fiscal Gaps by Program, Present-Value Allocation Method						
	Percent of GDP		Present-Value Dollars ($ trillion)		Required Reduction in Spending to Hold Fiscal Gap Constant	
	Through 2080	Infinite Horizon	Through 2080	Infinite Horizon	Through 2080	Infinite Horizon
Social Security	0.12%	0.15%	0.6	1.2	2%	2%
Medicare	0.61%	0.75%	3.1	6.1	10%	9%
Medicaid	0.37%	0.41%	1.9	3.3	13%	11%
Other entitlements	0.24%	0.20%	1.2	1.6	11%	9%
Defense and homeland security discretionary	0.44%	0.37%	2.2	3.0	13%	11%
Nondefense, nonhomeland-security discretionary	0.39%	0.33%	2.0	2.7	13%	11%
Total	2.17%	2.20%	10.9	18.0	9%	8%
Source: Authors' calculations.						

2001 and 2003 individual income and estate tax cuts and the AMT reform specified above *relative to a baseline in which the AMT had been reformed*.[15] We then add estimates from the Joint Committee on Taxation for the temporary bonus depreciation provision and the expansion in section 179 expensing to obtain our overall estimates.[16] We assume that all provisions of the 2001 and 2003 tax cuts are extended past their official sunsets except the bonus depreciation provision.

Our revenue estimates over the next 10 years are shown in Table 9. After 2014 the tax cut is assumed to remain the same share of GDP (2.2 percent) as it represents in 2014. To compute the effect on the fiscal gap, we incorporate both the revenue loss from 2004 and subsequent years and the effect on public debt at the end of 2003 from the tax cuts since 2001.[17]

Table 10 shows that the recent tax cuts plus the cost of making the 2001 and 2003 tax cuts permanent would increase the fiscal gap by 2.2 percent of GDP through 2080 and over an infinite horizon. In present-value dollars, the tax cuts widen the fiscal gap by $11 trillion through 2080 and $18 trillion over an infinite horizon.[18]

Table 10 also shows the effect of the tax cuts on the fiscal gap by budgetary category under the present-value method. Under this method, the tax cuts increase the fiscal gap attributed to entitlement programs by 1.5 percent of GDP and the fiscal gap within discretionary spending by 0.7 percent of GDP over an infinite horizon. To offset the effects of the tax cuts on the fiscal gap by expenditure category would require *all* of the following through 2080:

- a 2 percent reduction in the present value of expenditures on Social Security;
- a 10 percent reduction in the present value of expenditures on Medicare;
- a 13 percent reduction in the present value of expenditures on Medicaid;
- a 11 percent reduction in the present value of expenditures on other entitlements;
- a 13 percent reduction in the present value of discretionary spending on defense and homeland security; and
- a 13 percent reduction in present value of discretionary spending outside defense and homeland security.

These changes imply a 9 percent reduction in overall noninterest spending. The table also shows that similar reductions would be required over an infinite period.

[15]The AMT reform assumes a higher AMT exemption level, allows personal nonrefundable credits against the AMT, and indexes the AMT to inflation. Under those assumptions, the number of tax filing units on the AMT in 2014, assuming the 2001 and 2003 tax legislation is extended, is about 5.5 million. Note that TPC model estimates do not incorporate microeconomic behavioral responses, as the official Joint Committee on Taxation (JCT) estimates do. We therefore scale the official JCT and CBO estimates by the ratio of the TPC estimates against the baseline in which the AMT is reformed to the TPC estimates against the official baseline in which the AMT is not reformed. The official JCT/CBO estimates have been modified by Richard Kogan of the Center on Budget and Policy Priorities to adjust for timing shifts; we use those adjusted estimates.

[16]The temporary bonus depreciation provision includes the cost of the provision included in the 2002 legislation along with the cost of the provision included in the 2003 legislation.

[17]In particular, we construct another baseline that excludes the tax cuts but includes the AMT reform. Under that baseline, the fiscal gap is 4.58 percent of GDP through 2080 and 7.81 percent of GDP over an infinite horizon. (Those estimates are almost identical to the official baseline figures; the fiscal gap under this alternative baseline is slightly larger on an infinite horizon than the official baseline because the long-term effect of the AMT reform dominates the effect of the official cost of the tax cuts through 2010.) We then measure the effect of the tax cuts on the fiscal gap relative to this alternative baseline.

[18]Orszag, Kogan, and Greenstein (2003) had concluded that the 2001 and 2003 tax cuts amounted to between $9.5 trillion and $11.6 trillion in present value over a 75-year period, depending on the specifics of the AMT reform.

Table 11: Making the 2001 and 2003 Tax Cuts Permanent: Effects on Fiscal Gaps by Program, Current Allocation Method

	Percent of GDP		Present-Value Dollars ($ trillion)		Required Reduction in Spending to Hold Fiscal Gap Constant	
	Through 2080	Infinite Horizon	Through 2080	Infinite Horizon	Through 2080	Infinite Horizon
Social Security	0.00%	0.00%	0.0	0.0	0%	0%
Medicare	0.15%	0.15%	0.7	1.2	2%	2%
Medicaid	0.26%	0.27%	1.3	2.2	9%	7%
Other entitlements	0.42%	0.42%	2.1	3.5	19%	19%
Defense and homeland security discretionary	0.71%	0.72%	3.6	5.9	20%	21%
Nondefense, nonhomeland-security discretionary	0.63%	0.64%	3.2	5.2	20%	21%
Total	2.17%	2.20%	10.9	18.0	9%	8%

Source: Authors' calculations.

Table 11 shows similar results using the current allocation method. In this approach, the tax cuts would widen the fiscal gap by 0.8 percent of GDP in entitlement programs and by 1.3 percent of GDP in discretionary spending. To close the fiscal gap on a program-by-program basis would require about 20 percent reductions in defense and homeland security, other discretionary spending, and other entitlements, but it would require very small percentage adjustments to Social Security and Medicare.

V. Conclusion

The nation faces a massive and growing fiscal gap. This article presents a framework to attribute that fiscal gap to specific budget categories and shows that the resultant budgetary sources of the fiscal gap depend critically on how future general revenue is allocated. Reasonable variations in how future general revenue is allocated generate substantially different results regarding the contributions of different government programs to the fiscal gap, underscoring the inherent ambiguity in attempts to allocate the fiscal gap by program. The value of moving beyond the overall fiscal gap to divide it by program remains unclear, but attempts to undertake an analysis must grapple with the challenge of allocating future general revenue across budget categories.

We also show that the recent tax cuts plus the cost of making the 2001 and 2003 tax cuts enlarge the overall fiscal gap by more than 2 percent of GDP (or $11 trillion) through 2080. Regardless of how one allocates future general revenue across government programs, the increase in the overall fiscal gap triggered by making the 2001 and 2003 tax cuts permanent would widen the fiscal gaps in key government programs and substantially exacerbate the long-term fiscal pressures facing the nation.

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, Mass.: National Bureau of Economic Research.

_____. "Quantifying the Current U.S. Fiscal Imbalance." *National Tax Journal*. vol. 50, September, pp. 387-98.

Auerbach, Alan J. and William G. Gale. 1999. "Does the Budget Surplus Justify a Large-Scale Tax Cut?" *Tax Notes*, Mar. 22, p. 1827.

_____. "Perspectives on the Budget Surplus." 2000. *National Tax Journal*. vol. 53, September, pp. 459-73.

_____. "Tax Cuts and the Budget."2001. *Tax Notes*, Mar. 26, p. 1869.

Auerbach, Alan J., William G. Gale, and Peter R. Orszag. 2003. "Reassessing the Fiscal Gap: Why Tax-Deferred Saving Will Not Solve the Problem." *Tax Notes*, July 28, p. 567.

Auerbach, Alan J., William G. Gale, Peter R. Orszag, and Samara R. Potter. 2003. "Budget Blues: The Fiscal Outlook and Options for Reform." In H. Aaron, J. Lindsay, and P. Nivola, eds., *Agenda for the Nation*, pp. 109-144. Washington, D.C.: Brookings Institution Press.

Burman, Leonard E., William G. Gale, and Jeffrey Rohaly. 2003. "The AMT: Projections and Problems." *Tax Notes*, July 7, p. 105.

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

Congressional Budget Office. 2003. *The Long-Term Budget Outlook*. December.

(C) Tax Analysts 2004. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.

Congressional Budget Office. 2004. *An Analysis of the President's Budgetary Proposals for Fiscal Year 2005.* March.

Gale, William G. and Peter R. Orszag. 2004. "The Budget Outlook: Updates And Implications." *Tax Notes,* Feb. 16, p. 915.

General Accounting Office. 2003. "Truth And Transparency: The Federal Government's Financial Condition And Fiscal Outlook." Speech by the Honorable David M. Walker at the National Press Club. Sept. 17.

Gokhale, Jagadeesh and Kent Smetters. 2003. *Fiscal and Generational Imbalances: New Budget Measures for New Budget Priorities.* Washington, D.C.: The AEI Press.

Office of Management and Budget. 2004. *Analytical Perspectives: Fiscal Year 2005 Budget of the United States.*

Orszag, Peter, Robert Greenstein, and Richard Kogan. 2003. "The Administration's Tax Cuts and the Long-Term Budget Outlook." Center on Budget and Policy Priorities. March.

(C) Tax Analysts 2004. All rights reserved. Tax Analysts does not claim copyright in any public domain or third party content.