

Table A-5.
How Tight Are the Discretionary Caps? (By fiscal year, in billions of dollars)

	1996	1997	1998
Budget Authority			
Discretionary Caps ^a	522	535	542
Amount Needed to Preserve 1995 Real Resources			
Defense	272	282	291
International	21	22	23
Domestic	<u>241</u>	<u>251</u>	<u>269</u>
Total	534	555	583
Amount over or under (-) caps	13	20	42
Amount Needed to Freeze 1995 Dollar Resources			
Defense	263	263	263
International	20	20	20
Domestic	<u>227</u>	<u>227</u>	<u>227</u>
Total	511	511	511
Amount over or under (-) caps	-11	-24	-31
Outlays			
Discretionary Caps ^a	552	553	557
Amount Needed to Preserve 1995 Real Resources			
Defense	270	278	285
International	22	22	22
Domestic	<u>264</u>	<u>274</u>	<u>285</u>
Total	556	574	592
Amount over or under (-) caps	4	21	35
Amount Needed to Freeze 1995 Dollar Resources			
Defense	264	264	262
International	21	21	21
Domestic	<u>259</u>	<u>260</u>	<u>262</u>
Total	544	545	545
Amount over or under (-) caps	-8	-9	-12

SOURCE: Congressional Budget Office.

NOTE: Amounts needed to preserve 1995 real resources include adjustments for inflation of about 3 percent a year. Amounts needed to freeze 1995 dollar resources include no adjustments for inflation. Both paths include the budget authority necessary to renew expiring contracts for subsidized housing. There are no discretionary caps after 1998.

a. The caps reflect discretionary spending limits as specified by the Office of Management and Budget in the sequestration preview report included in the President's budget.

Table A-6.
CBO's Baseline Projections for Interest Costs and Federal Debt (By fiscal year, in billions of dollars)

	Actual 1994	1995	1996	1997	1998	1999	2000
Net Interest Outlays (Billions of dollars)							
Interest on Public Debt (Gross interest) ^a	296	340	371	386	401	422	445
Interest Received by Trust Funds							
Social Security	-29	-35	-39	-45	-50	-55	-61
Other trust funds ^b	<u>-56</u>	<u>-62</u>	<u>-63</u>	<u>-63</u>	<u>-63</u>	<u>-63</u>	<u>-62</u>
Subtotal	-86	-96	-102	-107	-112	-118	-123
Other Interest ^c	<u>-8</u>	<u>-8</u>	<u>-8</u>	<u>-8</u>	<u>-7</u>	<u>-8</u>	<u>-8</u>
Total	203	235	260	271	281	296	313
Federal Debt, End of Year (Billions of dollars)							
Gross Federal Debt	4,644	4,943	5,285	5,648	6,013	6,407	6,834
Debt Held by Government Accounts							
Social Security	420	489	561	640	724	812	907
Other government accounts ^b	<u>792</u>	<u>836</u>	<u>881</u>	<u>919</u>	<u>952</u>	<u>973</u>	<u>989</u>
Total	1,212	1,325	1,442	1,559	1,675	1,786	1,896
Debt Held by the Public	3,432	3,618	3,843	4,090	4,338	4,621	4,938
Debt Subject to Limit ^d	4,605	4,903	5,244	5,607	5,971	6,365	6,792
Federal Debt as a Percentage of GDP							
Debt Held by the Public	51.7	51.4	52.1	52.8	53.2	53.9	54.8

SOURCE: Congressional Budget Office.

NOTE: Projections of interest and debt assume compliance with the discretionary spending caps in the Budget Enforcement Act. Discretionary spending is assumed to rise with inflation after the caps expire in 1998.

- a. Excludes interest costs of debt issued by agencies other than the Treasury (primarily the Tennessee Valley Authority).
- b. Principally Civil Service Retirement, Military Retirement, Medicare, unemployment insurance, and the Highway and the Airport and Airway trust funds.
- c. Primarily interest on loans to the public and to the Resolution Trust Corporation and the Bank Insurance Fund.
- d. Differs from the gross federal debt primarily because most debt issued by agencies other than the Treasury is excluded from the debt limit.

Table A-7.
The Budget Outlook Through 2005 with Discretionary Inflation After 1998 (By fiscal year)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
In Billions of Dollars											
Revenues	1,355	1,418	1,475	1,546	1,618	1,697	1,787	1,880	1,978	2,082	2,191
Outlays											
Discretionary	548	552	553	557	575	595	615	636	658	680	703
Mandatory	843	897	961	1,025	1,098	1,176	1,250	1,339	1,431	1,531	1,643
Deposit insurance	-16	-8	-4	-5	-3	-2	-2	-2	-2	-1	-1
Net interest	235	260	271	281	296	313	329	350	372	397	424
Offsetting receipts	<u>-80</u>	<u>-73</u>	<u>-75</u>	<u>-79</u>	<u>-82</u>	<u>-86</u>	<u>-90</u>	<u>-94</u>	<u>-98</u>	<u>-102</u>	<u>-107</u>
Total	1,530	1,628	1,706	1,778	1,885	1,997	2,103	2,229	2,361	2,504	2,663
Deficit	175	210	230	232	266	299	316	349	384	422	472
Social Security Surplus	69	73	78	84	89	95	102	109	116	124	133
Hospital Insurance Surplus	3	-2	-9	-15	-22	-29	-37	-46	-56	-67	-80
Debt Held by the Public	3,618	3,843	4,090	4,338	4,621	4,938	5,271	5,638	6,040	6,479	6,969
As a Percentage of GDP											
Revenues	19.3	19.2	19.0	19.0	18.9	18.8	18.8	18.8	18.8	18.8	18.8
Outlays											
Discretionary	7.8	7.5	7.1	6.8	6.7	6.6	6.5	6.4	6.3	6.2	6.1
Mandatory	12.0	12.2	12.4	12.6	12.8	13.1	13.2	13.4	13.6	13.9	14.1
Deposit insurance	-0.2	-0.1	-0.1	-0.1	a	a	a	a	a	a	a
Net interest	3.3	3.5	3.5	3.4	3.5	3.5	3.5	3.5	3.5	3.6	3.6
Offsetting receipts	<u>-1.1</u>	<u>-1.0</u>	<u>-1.0</u>	<u>-1.0</u>	<u>-1.0</u>	<u>-1.0</u>	<u>-0.9</u>	<u>-0.9</u>	<u>-0.9</u>	<u>-0.9</u>	<u>-0.9</u>
Total	21.7	22.1	22.0	21.8	22.0	22.2	22.2	22.3	22.5	22.7	22.9
Deficit	2.5	2.9	3.0	2.8	3.1	3.3	3.3	3.5	3.7	3.8	4.1
Social Security Surplus	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1
Hospital Insurance Surplus	a	a	-0.1	-0.2	-0.3	-0.3	-0.4	-0.5	-0.5	-0.6	-0.7
Debt Held by the Public	51.4	52.1	52.8	53.2	53.9	54.8	55.6	56.5	57.5	58.7	60.0

SOURCE: Congressional Budget Office.

a. Less than 0.05 percent of GDP.

Table A-8.
The Budget Outlook Through 2005 Without Discretionary Inflation After 1998 (By fiscal year)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
In Billions of Dollars											
Revenues	1,355	1,418	1,475	1,546	1,618	1,697	1,787	1,880	1,978	2,082	2,191
Outlays											
Discretionary	548	552	553	557	557	557	557	557	557	557	557
Net interest	235	260	271	281	295	311	324	339	355	372	389
All other ^a	<u>747</u>	<u>816</u>	<u>881</u>	<u>941</u>	<u>1,013</u>	<u>1,088</u>	<u>1,158</u>	<u>1,243</u>	<u>1,331</u>	<u>1,427</u>	<u>1,535</u>
Total	1,530	1,628	1,706	1,778	1,865	1,956	2,038	2,139	2,243	2,355	2,481
Deficit	175	210	230	232	247	258	252	259	266	273	290
Debt Held by the Public	3,618	3,843	4,090	4,338	4,602	4,877	5,146	5,423	5,707	5,998	6,306
As a Percentage of GDP											
Revenues	19.3	19.2	19.0	19.0	18.9	18.8	18.8	18.8	18.8	18.8	18.8
Outlays											
Discretionary	7.8	7.5	7.1	6.8	6.5	6.2	5.9	5.6	5.3	5.0	4.8
Net interest	3.3	3.5	3.5	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.3
All other ^a	<u>10.6</u>	<u>11.1</u>	<u>11.4</u>	<u>11.5</u>	<u>11.8</u>	<u>12.1</u>	<u>12.2</u>	<u>12.5</u>	<u>12.7</u>	<u>12.9</u>	<u>13.2</u>
Total	21.7	22.1	22.0	21.8	21.8	21.7	21.5	21.4	21.4	21.3	21.3
Deficit	2.5	2.9	3.0	2.8	2.9	2.9	2.7	2.6	2.5	2.5	2.5
Debt Held by the Public	51.4	52.1	52.8	53.2	53.7	54.1	54.3	54.4	54.4	54.3	54.2

SOURCE: Congressional Budget Office.

a. Spending for all other categories--mandatory outlays, deposit insurance, and offsetting receipts--would be the same as in Table A-7.

Economic and Budgetary Implications of Balancing the Budget

The Congressional Budget Office's (CBO's) January report, *The Economic and Budget Outlook: Fiscal Years 1996-2000*, laid out one of many possible paths of deficit reduction that would lead to a balanced budget by 2002. CBO has updated that illustrative path to reflect the revisions to the baseline projections of the budget in this report (see Table B-1). The January report also briefly discussed the possibility that reducing the budget deficit would positively affect the overall economy, which in turn would yield further reductions in the deficit. This appendix expands on that discussion and provides estimates of those impacts.

Balancing the budget over the next seven years will require many hard decisions about taxing and spending policies, and many of those choices will have important implications for the nation's economic outlook. Although the details of those decisions have yet to be worked out, some likely macroeconomic effects that flow simply from balancing the budget can be anticipated, based on available empirical research. CBO's analysis indicates that growth is likely to be modestly higher, on average, from now until 2002, provided that the policy changes necessary to balance the budget do not fall especially hard on private saving or on productive public investments (see Tables B-2 and B-3). Inflation could increase or decrease slightly but should not be much affected. In the short term, although some bumps could appear in the road, the fiscal restraint implied by the effort to balance the budget need not weaken the economy substantially as long as the Federal Reserve acts to offset that restraint. Interest rates are likely to be

significantly lower, falling to the range that they inhabited in the 1950s and 1960s, when budget deficits were typically modest by today's standards.

Most of the benefits of balancing the budget would accrue over time, becoming more pronounced after the next seven years. Thus, the major beneficiaries of a balanced budget may be future generations, who would gain from both the nation's increased productive capacity and a lower burden of debt. Indeed, current fiscal policies literally cannot remain unchanged indefinitely: at some time, action will have to be taken to bring government borrowing under control, or servicing the federal debt will require unsustainable tax rates in future years. Prompt action would limit the damage that occurs when federal debt crowds out capital investment, putting upward pressures on interest rates. It would also limit the size of the needed changes in fiscal policy.

The estimates in this appendix of the economic implications of balancing the budget over the next seven years reflect only the macroeconomic component of effects on national saving and investment in an environment with a favorable monetary policy. The actual outcomes will depend on the fiscal and monetary policy choices that are made. If the deficit is closed by means that lead to particularly strong disincentives for private saving or investment, or by reducing productive government investments, the benefits of eliminating the deficit could be reduced. Moreover, monetary policy that does not accommodate the fiscal restraint inherent in a balanced budget

could lead to short-run losses in output--and in incomes as well. Of course, policy changes could also work the other way--by increasing private and public investment. In that case, the nation's economic outlook under a balanced budget would be enhanced. Because those policy decisions have not been made, their effects are not included in this analysis.

An Illustrative Path to a Balanced Budget

For illustrative purposes, CBO has laid out one of many possible paths to a balanced budget in 2002

Table B-1.
Illustrative Deficit Reduction Path (By fiscal year, in billions of dollars)

	1995	1996	1997	1998	1999	2000	2001	2002	1996-2002
CBO March Baseline Deficit with Discretionary Inflation After 1998 ^a	175	210	230	232	266	299	316	349	n.a.
Freeze Discretionary Outlays After 1998									
Discretionary reduction	0	0	0	0	-19	-38	-59	-80	-196
Debt service	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>-1</u>	<u>-3</u>	<u>-6</u>	<u>-10</u>	<u>-19</u>
Deficit Reduction	0	0	0	0	-20	-41	-64	-90	-215
CBO March Baseline Deficit Without Discretionary Inflation After 1998 ^b	175	210	230	232	247	258	252	259	n.a.
Additional Deficit Reduction									
Policy changes ^c	0	-36	-72	-107	-161	-173	-186	-200	-934
Debt service	<u>0</u>	<u>-1</u>	<u>-5</u>	<u>-11</u>	<u>-20</u>	<u>-32</u>	<u>-45</u>	<u>-60</u>	<u>-173</u>
Deficit Reduction	0	-37	-76	-118	-181	-204	-231	-259	-1,107
Resulting Deficit	175	173	154	114	66	54	21	d	n.a.
Total Change from Baseline Deficit with Discretionary Inflation After 1998									
Policy changes	0	-36	-72	-107	-180	-211	-245	-279	-1,130
Debt service	<u>0</u>	<u>-1</u>	<u>-5</u>	<u>-11</u>	<u>-21</u>	<u>-34</u>	<u>-50</u>	<u>-70</u>	<u>-192</u>
Total Deficit Reduction	0	-37	-76	-118	-200	-245	-295	-349	-1,322

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

- Assumes compliance with discretionary spending limits of the Balanced Budget and Emergency Deficit Control Act through 1998. Discretionary spending is assumed to increase at the rate of inflation after 1998.
- Assumes compliance with discretionary spending limits of the Balanced Budget and Emergency Deficit Control Act through 1998. Discretionary spending is frozen at the 1998 level after that year.
- These changes represent only one of a large number of possible paths that would lead to a balanced budget. The exact path depends on when deficit reduction begins and the specific policies adopted by the Congress and the President. This path is not based on any specific policy assumptions but does assume that policies are fully phased in by 1999.
- Surplus of less than \$500 million.

(see Table B-1). Starting from a baseline that assumes that discretionary spending is adjusted for inflation after 1998, that path first shows the savings that would be achieved by freezing discretionary spending through 2002 at the dollar level of the 1998 cap. The freeze, along with the resulting debt-service effects, would produce \$90 billion of the required savings of \$349 billion in 2002. Such a freeze would reduce the buying power of total discretionary appropriations nearly 20 percent below the 1995 level.

CBO also built into its illustrative path a possible course of savings from further policy changes. The amounts of those savings are not based on any particular set of policies. The pattern of savings between 1996 and 1999, however, is similar to the phasing in of changes in mandatory spending enacted in the last two major efforts at reducing the deficit, in 1990 and 1993. After 1999, the assumed savings increase at the baseline rate of growth for entitlement and other mandatory spending, excluding Social Security--implying that the cuts made in earlier years are permanent but no additional policy changes are made. If

those savings were achieved entirely out of entitlement or other mandatory programs (excluding Social Security), they would represent about a 20 percent reduction from current-policy levels for those programs.

Over the entire period from 1996 to 2002, the policy changes in CBO's illustrative path would save more than \$1.1 trillion from a baseline that adjusts discretionary spending for inflation after 1998. The cost of servicing the public debt would also fall, and when that cost is included, the total savings exceed \$1.3 trillion. This path and the resulting savings are no more than illustrative: the cumulative amount of deficit reduction between 1996 and 2002 will depend on the timing and nature of the policy changes chosen to achieve balance in 2002.

Many of the estimates in this appendix of the economic effects of balancing the budget are based on model simulations, which required additional assumptions about the nature of the policies chosen to balance the budget. Those simulations assumed that the budget would be balanced smoothly over the next

Table B-2.
Potential Economic Impacts of Balancing the Budget by 2002 Compared with CBO's January Economic Forecast (By calendar year)

	1996	1997	1998	1999	2000	2001	2002
Interest Rates (Percentage points)							
Three-month Treasury bills	-0.2	-0.4	-0.7	-0.9	-1.1	-1.1	-1.1
Ten-year Treasury notes	-0.2	-0.5	-0.8	-1.1	-1.4	-1.7	-1.7
Real Gross National Product							
Percentage change in level from base	0.1	0.2	0.3	0.4	0.6	0.7	0.8
Change in growth rate (Percentage points)	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Real Gross Domestic Product							
Percentage change in level from base	0	0.1	0.2	0.3	0.3	0.4	0.5
Change in growth rate (Percentage points)	0	0.1	0.1	0.1	0.1	0.1	0.1

SOURCE: Congressional Budget Office.

Table B-3.
CBO's January Economic Forecast After Adjusting for the Economic Impacts of Balancing the Budget (By calendar year, in percent)

	1996	1997	1998	1999	2000	2001	2002
Nominal GDP Growth	4.7	5.3	5.3	5.2	5.2	5.3	5.3
Real GDP Growth	1.8	2.5	2.4	2.4	2.4	2.4	2.4
Inflation (CPI-U)	3.4	3.4	3.4	3.4	3.4	3.4	3.4
Unemployment	5.7	5.8	5.9	6.0	6.0	6.0	6.0
Interest Rates							
Three-month Treasury bills	5.5	4.9	4.5	4.2	4.0	4.0	4.0
Ten-year Treasury notes	6.8	6.2	5.9	5.6	5.3	5.1	5.1

SOURCE: Congressional Budget Office.

NOTE: CPI-U = consumer price index for urban consumers.

seven years, following the illustrative path laid out above. Moreover, they assumed that the policy actions would be on the outlay side of the budget rather than on the revenue side. The broad conclusions apply, however, to many other ways of reaching balance, provided that those methods do not involve changes in marginal rates of taxation on saving, on the return from capital, or on labor. Finally, the simulations assumed that both financial markets and the Federal Reserve would view the policy changes as a credible route to balancing the budget.

Increased Growth

Balancing the budget by 2002 could allow the economy to grow modestly faster--by about 0.1 percentage point per year on average. By 2002, the annual level of gross national product (GNP) might be about 0.8 percent higher than it would be if fiscal policy continued on its current path.¹ Moving to a balanced budget would add to growth by redirecting resources away from public and private consumption and toward investment and an improved national balance

sheet--especially by cutting the current pace of borrowing from foreigners and eliminating the need to service that debt.

In balancing the budget, private saving is likely to decrease, although to what extent is highly uncertain. How much private saving drops off will depend critically on how the deficit is reduced and whether policy changes alter any of the tax factors that enter into decisions to save. Without such changes in taxes, private saving might fall by between 20 percent and 40 percent of the reduction in the deficit, according to the models that CBO has analyzed. Thus, national wealth would increase by between 60 percent and 80 percent of the cumulative reduction in the deficit.

Some of the rise in national wealth would appear as a higher level of capital stock (increasing productive capacity in the United States), and some would show up as lower levels of borrowing from foreigners. No consensus exists on how much each of those elements would change, but the range of possible increases in productive capacity over the next seven years is limited. The existing capital stock is large; it takes years to change by a noticeable proportion. Moreover, the models that CBO has examined predict an increase in private investment of only about 20 percent of the amount of reduction in the deficit. Such an increase would raise the capital stock by

1. The more familiar concept of gross domestic product (GDP) measures only production in the United States and does not reflect the decline in debt service to foreigners. Thus, GNP could increase by some 0.8 percent in 2002, but GDP might increase by only 0.5 percent.

about 2.2 percent in 2002, expanding productive capacity by about 0.5 percent.

The shift of resources to investment and net exports may not go smoothly, however. Balancing the budget implies a substantial amount of restraint overall, averaging some 0.4 percent of GDP each year for seven years. (Usually, fiscal restraint lasts for two years or less.) If the Federal Reserve failed to offset restraint, consumption could fall more quickly than investment and net exports rise, with the result that the economy could weaken in the short run. The Federal Reserve might welcome fiscal restraint if the economy seemed close to overheating, for example. Moreover, even if the Federal Reserve sought to offset fiscal restraint with a more expansionary monetary policy, the effects of monetary policy on the economy are uncertain, both in their size and timing. Because a perfect offset would be too much to expect, budget balancing risks some temporary reduction in real GDP.

Nevertheless, the danger of a substantial downturn seems small, provided that changes in spending and taxes follow a relatively smooth path and are credible to both financial markets and the Federal Reserve. Given such credibility, long-term interest rates are likely to fall and help boost domestic investment, and the Federal Reserve could act early to reduce short-term rates. The annual amount of restraint, moreover, does not seem unmanageable, provided that the deficit is reduced reasonably smoothly. Although some bumps could occur along the way, those short-term problems should not interfere with the investment and gains in productivity that would bring increased growth between now and 2002.

The Federal Reserve's actions could also affect the rate of inflation. On the one hand, inflation could rise temporarily because lower interest rates in the United States would reduce the value of the dollar and raise the price of imports. On the other hand, if the Federal Reserve targeted nominal GDP, inflation could eventually fall by as much as the growth in real GDP. In short, the net effect on inflation cannot be predicted with any confidence.

Lower Interest Rates

Economists disagree widely over the effect of fiscal policy on interest rates. Some believe that the openness of U.S. capital markets ensures that real rates cannot stray far from those in other countries, and thus they would give little credence to any fiscally induced change in real rates. Others, using models of the U.S. economy alone, cite much larger impacts: according to one of those models, balancing the budget could reduce long-term interest rates by as much as 400 basis points.

Good arguments exist for a more reasonable range that encompasses the uncertainty about the likely effects of balancing the budget--a range of from 100 to 200 basis points. A drop of that magnitude from CBO's baseline forecast would leave real long-term rates at between 1 percent and 2 percent--lower than they have been since the 1950s--and real short-term rates close to zero. During the 1970s, short-term rates fell below the rate of inflation largely because of unanticipated increases in inflation and inappropriately expansionary monetary policy. But in periods without such policy mistakes, real short-term interest rates have rarely been as low as zero.

How quickly rates would fall depends on many poorly understood factors, but the drop in rates would probably anticipate any actual reduction in the deficit by a year or so. Long-term interest rates, for example, might respond to announced future reductions in the deficit if those reductions seemed credible--and as the Congress proceeds along the path of deficit reduction, credibility is likely to increase. The timing of a fall in short-term rates would depend on when the Federal Reserve acted, which--given the long lags in the effect of monetary policy on the economy--could also anticipate the actual decline in the deficit. CBO has assumed, relatively conservatively, that the reduction in both long- and short-term rates might occur over a five- to six-year period. Some analysts might argue that long-term rates could respond even faster, as for instance they did after en-

actment of the Omnibus Budget Reconciliation Act of 1993. But the evidence on the cause of that drop is mixed: the sharp decline in long-term rates in 1993 could also be attributed to falling expectations about inflation--and in any case the decline was partly reversed within a year. Moreover, long-term rates did not fall quickly following enactment of a similar fiscal package in 1990. With such conflicting evidence, some caution about the likely speed of reductions in interest rates seems warranted.

Very Large Reductions in Rates Seem Unlikely

One widely used model, developed by Data Resources Inc. (DRI), predicts an exceptionally large drop in interest rates as the deficit falls--nearly 400 basis points in the simulations carried out by CBO. (When DRI carries out similar simulations, it uses different auxiliary assumptions and arrives at somewhat smaller impacts on rates. The drop in interest rates is still, however, much larger than that derived from other models.) In the DRI model, domestic saving and investment respond much more slowly to changes in interest rates than is the case in the other models CBO examined. Consequently, interest rates must fall substantially in order for investment to replace the public and private consumption lost to fiscal restraint.

Such large reductions in rates lack credibility from another point of view: when combined with CBO's base forecast of interest rates, they would push real rates well below those that prevailed in the 1950s and 1960s, when the deficit was generally expected to remain under control. Indeed, the DRI results imply that negative real interest rates would persist for years.

A Lack of Effect on Interest Rates Also Seems Unlikely

Those who expect deficit reduction to have little or no impact on interest rates probably overstate their case as well. Their argument is that because the U.S. capital market is wide open to lending to and borrowing from foreigners, interest rates in the United States

cannot long deviate from world rates. As a result, real interest rates cannot respond to changes in the U.S. budget deficit.

The United States, however, is a big enough player that changes in its markets can affect world capital markets. In the early 1980s, for example, the rise of government borrowing in the United States, together with tight monetary policy at the beginning of the decade, was blamed for increases in world interest rates. Those high rates precipitated a crisis for developing countries like Mexico that had borrowed too freely in the 1970s.

U.S. interest rates can, moreover, deviate persistently from foreign rates, provided that the expected returns to foreigners investing in the United States remain similar to those that foreigners would receive for investing in their own economies. The return for foreigners investing in the United States comprises two elements: the interest paid (in dollars) on U.S. liabilities, and the expected capital gains or losses (in German marks or Japanese yen) that occur as exchange rates shift. Changes in the expected movements of currency values allow fiscal excess to raise interest rates in the United States above those in foreign economies--as occurred in the early 1980s. Correspondingly, fiscal restraint will reduce U.S. interest rates by more than the reductions occurring in other countries that do not undergo the same contraction. (Initially, fiscal restraint and lower interest rates in the United States will lead to a drop in the value of the dollar relative to other currencies, but subsequently the dollar will begin to appreciate.)

CBO has examined one model that incorporates the two elements noted above. The MSG model simulates how foreign interest rates would fall and how exchange rate movements would permit changes in the differential between U.S. and foreign rates.² The model predicts a decline of 160 basis points in interest rates by 2002 under a balanced budget.

Interest rates may also differ among nations because the liabilities of different countries do not appear exactly the same to investors. Although capital

2. See Warwick McKibbin and Jeffrey Sachs, *Global Linkages: Macroeconomic Interdependence and Cooperation in the World Economy* (Washington, D.C.: Brookings Institution, May 1991).

Table B-4.
Change in the Federal Deficit Resulting from the Economic Impacts of Balancing
the Budget by 2002 (By fiscal year, in billions of dollars)

	1996	1997	1998	1999	2000	2001	2002
Change Resulting from Lower Interest Rates							
Outlays (Net interest)	-2	-6	-12	-20	-28	-36	-42
Revenues (Federal Reserve earnings) ^a	<u>b</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>5</u>
Subtotal	-2	-5	-10	-17	-24	-31	-37
Change Resulting from Higher GDP (Revenues)	<u>-1</u>	<u>-2</u>	<u>-4</u>	<u>-6</u>	<u>-8</u>	<u>-10</u>	<u>-13</u>
Total Effect on Deficit	-3	-7	-14	-23	-32	-41	-50

SOURCE: Congressional Budget Office.

NOTE: These estimates assume that the budget is balanced by 2002. Outstanding debt depends only on the budget deficit and is unaffected by the changes reflected in this table. Consequently, no further savings in servicing the debt accrue from these changes.

a. Revenue reductions are shown as positive because they increase the deficit.

b. Less than \$500 million.

markets are well integrated, they are not perfectly meshed, and in some, the opportunities for hedging are limited. Moreover, if the United States was to continue on its current fiscal track, the risk of holding dollar securities could rise.

CBO's Estimate

Although the extremes of the range of impacts on interest rates can be ignored, narrowing the range any further than to between 100 and 200 basis points proves difficult. CBO's estimates, shown in Table B-2, split that range, since they imply that a weighted average of interest rates would drop by 150 basis points over six years. (The weights are 25 percent on short-term rates and 75 percent on long-term rates and roughly reflect the shares of short- and long-term securities in current federal borrowing from the public.) Long-term rates drop more than short-term ones, on the assumption that the policies undertaken to balance the budget will put the long-term fiscal outlook on a more sustainable path than is possible under current policies.

The Uncertainty of the Economic Estimates

The estimates in Tables B-2 and B-3 are subject to two kinds of uncertainty. The first, which has been discussed at length, is the substantial uncertainty about the effects of balancing the budget, assuming that other outcomes match CBO's January expectations. The second kind of uncertainty arises because many things will happen--not just in the area of fiscal policy but in the rest of the economy--that CBO could not anticipate in its January forecast. For example, the forecast did not anticipate that growth in GDP for the fourth quarter of 1994 would be revised upward to 5.2 percent; neither did it anticipate the weakness of the dollar against the yen.

Such events beyond the domain of fiscal policy could easily obscure the impacts on growth and interest rates that balancing the budget would set in motion. For example, if the weakness of the dollar continues, the Federal Reserve might be unwilling to

lower interest rates as quickly as the budget-balancing scenario assumes. The estimates in Tables B-2 and B-3 should therefore be viewed with appropriate caution: a few years down the road, it may be impossible to disentangle the effects of balancing the budget from other forces operating at the same time in the U.S. economy.

Budgetary Effects

Budgetary savings would result from both the reduction in interest rates and the increase in real GDP and GNP (see Table B-4). Lower interest rates would cut the cost of federal payments for interest on the debt held by the public. A portion of those interest pay-

ments goes to the Federal Reserve, which holds significant amounts of government securities. Because the Federal Reserve returns its earnings to the federal government, the smaller interest payment to the Federal Reserve (which is reflected in the estimate of the effect of lower interest rates on net interest payments) is offset by a smaller amount of earnings returned to the government. The offset is shown separately because the collections from the Federal Reserve are recorded in the budget as revenues, rather than as offsets to net interest outlays. The increase in economic activity reflected in the faster growth of GDP would generate additional revenues from income and payroll taxes and from customs duties. The estimated increase in revenues also reflects a rise in tax revenues on interest income. That rise occurs because a smaller proportion of such income would be paid to foreigners to service accumulated debt.

Major Contributors to the Revenue and Spending Projections

The following Congressional Budget Office analysts prepared the revenue and spending projections in this report:

Revenue Projections

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Drew McMorrow	Excise taxes
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Spending Projections

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Edward Blau	Authorization bills
Jodi Capps	Appropriation bills
Karin Carr	Budget projections, historical budget data, other interest
Betty Embrey	Appropriation bills
Kenneth Farris	Computer support
Vernon Hammett	Computer support
Ellen Hays	Credit programs
Sandra Hoffman	Computer support
Jeffrey Holland	Net interest on the public debt, national income and product accounts

Deborah Keefe	Computer support
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