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# An Analysis of Congressional Budget Estimates

In May 1994, the Congress adopted a budget resolution for fiscal year 1995 that anticipated a deficit of \$175 billion in that year. Unlike the one in the previous year, the budget resolution for 1995 did not assume passage of significant new legislation, and thus the deficit figure differed little from the Congressional Budget Office's (CBO's) deficit projection under current laws and policies. When fiscal year 1995 ended, the Treasury Department announced an actual deficit of \$164 billion--marking the third straight year in which the actual deficit was less than that anticipated by the budget resolution. (Before the recent trend, the actual deficit exceeded the figure in the budget resolution for 13 years in a row). The \$11 billion difference in the 1995 deficit can be traced to a mix of factors affecting both spending and revenues.

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## Sources of Differences

The Congressional Budget Office divides the differences between budget resolutions and actual outcomes into three categories: policy, economic, and technical.

*Policy* differences reflect the passage of legislation that was not explicitly anticipated in the budget resolution or legislation that cost (or saved) more money than was assumed. An example of the former is emergency appropriations, such as those for aid to victims of natural disasters, which are by definition difficult to anticipate. Policy differences can also

reflect the failure to enact legislation that was assumed in the resolution.

*Economic* differences can be blamed on a failure to anticipate the actual performance of the economy. Every budget resolution contains assumptions about several key economic variables--chiefly gross domestic product (GDP), unemployment, inflation, and interest rates--that are needed to develop estimates of revenues and spending for benefit programs and net interest. Typically (as for the 1995 budget resolution), the economic assumptions are drawn from a CBO forecast, although in about one-third of the cases--notably in 1982 and for most of the years between 1988 and 1992--the Congress chose a non-CBO forecast, generally one from the Administration.

Soon after the end of the fiscal year, CBO judges how much of the difference between the budget resolution and the actual revenue and outlay totals should be ascribed to economic factors, using information available at that time; that allocation is not subsequently changed, even though revisions of data about GDP and taxable incomes continue to trickle in thereafter. Only the differences that can be linked rigorously to those major variables are labeled economic. Other differences that might be tied to economic performance (for example, higher support payments to farmers in response to weak agricultural exports) are not included in this category because their relationship to the published forecast is more tenuous.

All other types of discrepancies are classified as *technical* differences. The portions of the budget that have contributed the largest technical differences since 1980 are noted at the end of this appendix. Not surprisingly, technical misestimates are concentrated in revenues and in open-ended commitments of the government such as entitlement programs. Large technical differences often prompt both CBO and the Administration to review their methods of projection, but some such differences are inevitable given the size and complexity of the budget.

equaled the limits set by the Budget Enforcement Act of 1990. The budget resolution did not include any reconciliation instructions altering mandatory spending levels or revenues.

As a whole, the resolution for fiscal year 1995 called for total outlays of \$1,514 billion, revenues of \$1,338 billion, and a deficit of \$175 billion (see Table B-1). Ultimately, outlays came in \$6 billion higher and revenues \$17 billion higher, resulting in a deficit that was \$11 billion smaller than that envisioned in the resolution.

## The Budget Resolution for Fiscal Year 1995

In contrast to both the previous year and the year that would follow, the Congress's budget resolution for fiscal year 1995 sought to keep the growth of federal spending in line with current law rather than chart a course for steep reductions in the deficit. Discretionary spending proposed in the budget resolution

## Changes in Policies

Policy actions added slightly to the deficit assumed in the budget resolution. Emergency spending--in the form of disaster aid to farmers and victims of the Oklahoma City bombing, antiterrorism initiatives, and expenditures on defense readiness--increased outlays by nearly \$4 billion in 1995 (see Table B-2). Under the terms of the Balanced Budget and Emergency Deficit Control Act of 1985, emergencies are a

**Table B-1.**  
Comparison of the CBO April 1994 Baseline, the 1995 Budget Resolution, and Actual Budget Totals for Fiscal Year 1995 (In billions of dollars)

	CBO April 1994 Baseline <sup>a</sup>	Budget Resolution <sup>b</sup>	Actual <sup>c</sup>	Actual Minus CBO April 1994 Baseline	Actual Minus Budget Resolution
Revenues	1,338	1,338	1,355	17	17
Outlays	1,518	1,514	1,519	1	6
Deficit	180	175	164	-16	-11

SOURCE: Congressional Budget Office.

NOTE: Totals include Social Security and the Postal Service, which are off-budget.

a. From Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 1995* (April 1994), Appendix A.

b. Concurrent Resolution on the Budget for Fiscal Year 1995.

c. From *Budget of the United States Government, Fiscal Year 1997*.

valid reason for extra spending and do not require increases in revenue or offsetting cuts in other programs. In 1995, however, the Congress did offset some emergency spending by enacting rescissions in the last half of the fiscal year that trimmed outlays

for appropriated accounts by more than \$1 billion. The Congress also passed legislation to reform the crop insurance program (a shift that may reduce the future need for stopgap emergency aid to farmers). But because that modification was anticipated in the

**Table B-2.**  
**Sources of Differences Between the CBO April 1994 Baseline, the 1995 Budget Resolution, and Actual Budget Totals for Fiscal Year 1995 (In billions of dollars)**

	Policy Differences			Economic Differences	Technical Differences	Total
	Emergencies	Other	Subtotal			
<b>Actual Minus CBO April 1994 Baseline</b>						
Revenues	0	a	a	16	1	17
Outlays						
Discretionary spending	4	-2	2	0	-3	a
Mandatory spending	0	1	1	-3	-6	-8
Deposit insurance	0	0	0	0	-6	-6
Net interest	0	a	a	20	-1	19
Offsetting receipts	<u>0</u>	<u>a</u>	<u>a</u>	<u>0</u>	<u>-3</u>	<u>-3</u>
Total	4	-1	3	17	-19	1
Deficit	4	-1	2	2	-20	-16
<b>Actual Minus Budget Resolution</b>						
Revenues	0	a	a	16	1	17
Outlays						
Discretionary spending	4	-1	2	0	3	5
Mandatory spending	0	a	a	-3	-6	-9
Deposit insurance	0	0	0	0	-6	-6
Net interest	0	a	a	20	-1	19
Offsetting receipts	<u>0</u>	<u>a</u>	<u>a</u>	<u>0</u>	<u>-4</u>	<u>-4</u>
Total	4	-2	2	17	-14	6
Deficit	4	-2	2	2	-15	-11

SOURCE: Congressional Budget Office.

a. Less than \$500 million.

budget resolution, it had little effect on the differences caused by changes in policy. In all, legislation affecting emergency and nonemergency outlays, combined with legislation that boosted tax receipts slightly, yielded a net increase of about \$2 billion in the deficit attributable to policy actions.

## Economic Factors

The economy grew somewhat faster in 1995 than had been assumed in the budget resolution. Nonetheless, economic differences as a whole expanded the deficit by \$2 billion. Although sustained economic growth and lower unemployment rates improved the deficit picture by pushing up revenues and suppressing costs for benefit programs, higher-than-expected interest rates caused the picture to deteriorate.

Interest rates rose throughout 1994 as the Federal Reserve attempted to rein in a strongly growing economy. Despite some reduction in rates in 1995, for the fiscal year as a whole, interest rates on three-month Treasury bills were 130 basis points (1.3 percentage points) higher than had been assumed in the budget resolution. Long-term interest rates (such as those on 10-year Treasury notes), rose by almost as much, but because the government's long-term debt turns over less quickly than its short-term debt holdings, that increase was not quite as important in explaining the jump in net interest outlays in 1995. In all, extra costs for debt servicing caused mostly by misestimates of interest rates topped \$20 billion--more than erasing the surge in revenues and the reductions in mandatory spending that were brought about by higher-than-expected growth and lower unemployment.

## Technical Factors

As described above, both legislative and economic factors added to the deficit figure called for in the 1995 budget resolution. Differences caused by technical factors--the label given to any incorrectly estimated amount that cannot be traced to legislative actions or inaccurate economic assumptions--more than offset all other differences, however. Most of the

\$15 billion misestimate that could be attributed to technical factors fell on the outlay side of the budget.

Because the budget resolution generally employed CBO's technical assumptions, most of the technical misestimates crop up in the same categories of spending. The category of discretionary spending is an exception, however. Emergency appropriations of nearly \$5 billion, passed by the Congress in early 1994 to aid victims of the Los Angeles earthquake and other disasters, were included in CBO's baseline but not in the budget resolution, even though the emergency legislation had already been enacted. In this analysis, the resulting underestimate of outlays in the budget resolution is called a technical, rather than a policy, difference.

In all other categories of spending, most notably mandatory programs and deposit insurance, technical factors led to overestimates of total outlays when the budget resolution was compared with actual outcomes. Although Medicaid continued to consume a considerable portion of federal entitlement spending, its rapid growth in recent years slowed slightly in 1995. Largely as a result of states' efforts to limit optional coverage and shift enrollees into health maintenance organizations and other cost-saving arrangements, Medicaid spent \$7 billion less in 1995 than CBO estimated in early 1994.

The overestimate of Medicaid spending was partly offset, however, by an unexpected jump in mandatory outlays of \$4.3 billion. (A corresponding increase in revenues of \$4.3 billion was also recorded.) This addition stemmed from a change in the treatment of transactions of the Universal Service Fund, which spreads the burden of providing telephone service among high- and low-cost areas. Before this year, those transactions were not included in federal outlay or revenue totals. However, the Office of Management and Budget (OMB) has now determined, and CBO has agreed, that the fund's income and disbursements should be recorded by the federal government, and therefore OMB has included both the fund's future and past transactions in the President's budget for fiscal year 1997. Because this increase in fiscal year 1995 outlays and revenues results from an accounting change, it falls in the category of technical differences.

Smaller misestimates appeared in a variety of other mandatory programs. Commodity Credit Corporation spending, for example, was nearly \$2 billion less than expected, while spending for veterans' benefits was slightly higher than earlier estimated. In all, technical factors accounted for a nearly \$6 billion overestimate of mandatory program spending.

Deposit insurance outlays resulting from the savings and loan cleanup have also proven difficult to predict. As with the other mandatory spending described above, the budget resolution for 1995 overestimated deposit insurance outlays by about \$6 billion. Much of that incorrectly estimated amount could be traced to lower-than-expected disbursements to failed banks and savings and loan institutions and to higher proceeds from the sale of assets acquired by the government. Differences in offsetting receipts--fees and charges assessed by the government that are recorded as negative outlays--reduced the deficit assumed in the budget resolution as well. The Federal Communications Commission's electromagnetic spectrum auctions were the largest contributor to the \$4 billion in added receipts, attracting more bids in 1995 than anticipated. Conversely, lower payments to the government's retirement funds, resulting in part from cuts in federal employment, reduced total receipts by about \$1 billion. But because the employment cuts were largely assumed in the budget resolution, their effect on offsetting receipts is noticeable only under the baseline comparison.

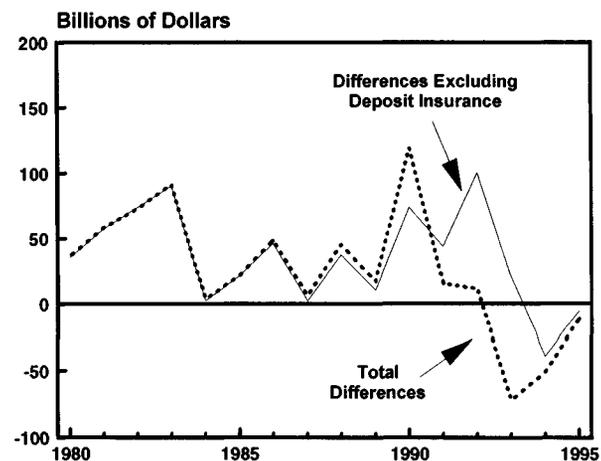
## Budget Resolutions in 1980 Through 1995

In 1980 through 1992, the deficit consistently exceeded the figure in the budget resolution by amounts ranging from a negligible \$4 billion to a staggering \$119 billion (see Table B-3). The 1993 budget resolution altered that pattern. The good news was muted, however, because the incorrectly estimated amount was more than explained by deposit insurance spending that was less than expected (see Figure B-1). In 1994 and 1995, the deficit continued to come in below the resolutions' assumptions, but in each of those years, the improvement was more broadly based.

Policy action or inaction (the failure to achieve savings called for in budget resolutions) has generally added to deficits by an average of \$10 billion a year. There were only three major periods when policymakers trimmed the deficit more, or added to it by less, than the resolution permitted--namely, in fiscal years 1982, 1987, and 1991. In fiscal year 1982, the first Reagan-era budget, that situation occurred mainly because the first-year tax cut contained in the Economic Recovery Tax Act of 1981 was smaller than the resolution assumed; in 1987, it happened principally because the new Tax Reform Act temporarily swelled collections; and in 1991, it took place chiefly because \$43 billion in contributions from foreign nations to help finance Operation Desert Storm streamed in, dampening total outlays commensurately. Since 1991, the Congress has hewed faithfully to the strictures of the Budget Enforcement Act, and nearly all additions to the deficit have been for emergency spending.

Because the budget process for a fiscal year begins about nine months before the year starts, economic performance is a regular source of uncertainty. Constant revisions to economic data, which continue long after the fiscal year in question, often make it hard to disentangle economic and technical errors.

**Figure B-1.**  
Differences Between Actual Deficits and Deficits in Budget Resolutions, Fiscal Years 1980-1995



SOURCE: Congressional Budget Office.

**Table E-3.**  
**Sources of Differences Between Actual Budget Totals and Budget Resolution Estimates,**  
**Fiscal Years 1980-1995 (In billions of dollars)**

	Policy Differences	Economic Differences	Technical Differences	Total
<b>Revenues</b>				
1980	6	8	-4	11
1981	-4	5	-13	-11
1982	13	-52	-1	-40
1983	-5	-58	-3	-65
1984	-14	4	-4	-13
1985	a	-20	3	-17
1986	-1	-23	-2	-27
1987	22	-27	7	2
1988	-11	4	-17	-24
1989	1	34	-8	26
1990	-7	-36	9	-34
1991 <sup>b</sup>	-1	-31	-24	-56
1992	3	-46	-34	-78
1993	4	-28	3	-20
1994	-1	12	4	15
1995	a	16	1	17
Average	a	-15	-5	-20
Absolute Average <sup>c</sup>	6	25	8	29
<b>Outlays</b>				
1980	20	12	16	48
1981	25	6	16	47
1982	1	24	8	33
1983	18	a	8	26
1984	1	7	-18	-9
1985	23	-5	-13	5
1986	14	-12	20	22
1987	7	-12	13	8
1988	-2	12	12	22
1989	17	14	12	43
1990	13	13	59	85
1991 <sup>b</sup>	-19	1	-22	-40
1992	15	-21	-60	-66
1993	16	-19	-90	-92
1994	10	-9	-36	-35
1995	2	17	-14	6
Average	10	2	-6	6
Absolute Average <sup>c</sup>	13	12	26	37

**Table B-3.**  
**Continued**

	Policy Differences	Economic Differences	Technical Differences	Total
<b>Deficit</b>				
1980	13	4	19	37
1981	28	1	29	58
1982	-12	76	9	73
1983	22	59	11	91
1984	15	3	-14	4
1985	23	15	-16	22
1986	16	11	22	49
1987	-15	15	6	6
1988	9	8	29	46
1989	17	-20	20	17
1990	20	49	50	119
1991 <sup>b</sup>	-19	32	2	15
1992	12	25	-26	11
1993	12	9	-93	-72
1994	11	-21	-40	-50
1995	2	2	-15	-11
Average	10	17	-1	26
Absolute Average <sup>c</sup>	15	22	25	43

SOURCE: Congressional Budget Office.

NOTES: Differences are actual outcomes minus budget resolution assumptions.

The allocation of revenue differences between economic and technical factors is done soon after the fiscal year in question and is not subsequently changed to incorporate revisions in economic data.

- a. Less than \$500 million.
- b. Based on the fiscal year 1991 budget summit agreement, as assessed by CBO in December 1990.
- c. The absolute average disregards whether the differences are positive or negative.

Nevertheless, with only two exceptions (in 1989 and 1994), budget resolutions over the 16-year span used short-term economic assumptions that proved overly optimistic. The worst errors, not surprisingly, were in years marked by recession or early stages of recovery--namely, in 1982 and 1983 and again in the 1990-1992 period. The economic differences occur chiefly in revenues and, on the spending side of the budget, in net interest. On average, they caused Congressional drafters to err on the optimistic side to the tune of \$17 billion.

Technical misestimates of the deficit have surprisingly averaged close to zero--although in absolute terms, disregarding whether they were positive or negative, they caused the average estimate of the deficit to be off by \$25 billion. The causes of large technical errors have varied over the years. On the revenue side, such errors were generally not very great through 1990 but ballooned in 1991 and 1992, when tax collections were even weaker than economic data seemed to justify. On the outlay side, farm price supports, receipts from offshore oil leases, defense, and

benefit programs dominated the errors through the mid-1980s. Such errors briefly faded at decade's end. Although underestimates of benefit outlays, especially for health care, swelled once again in 1991 and 1992, the last two years have witnessed overesti-

mates of both Medicare and Medicaid spending. Deposit insurance remains a major source of technical misestimates as well, but it was not nearly as significant a factor in 1995 as it was during the 1990-1993 period, the height of the savings and loan crisis.

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# How the Economy Affects the Budget

**T**he federal budget is highly sensitive to the economy. Revenues depend on taxable incomes--including wages and salaries, interest and other nonwage income, and corporate profits--which generally move in step with economic growth. Many benefit programs are pegged to inflation, either directly (like Social Security) or indirectly (like Medicare). And the Treasury continually borrows and refinances the government's debt at market interest rates.

The Congressional Budget Office (CBO) has summarized some of the links between key economic assumptions and federal budget projections with three rules of thumb. Those rules generate estimates of the impact on budget totals of changes in real growth, inflation, and interest rates. The real growth rule assumes 0.1 percentage-point slower growth than CBO's baseline, starting in January 1996. The inflation and interest rate rules assume each is 1 percentage point greater than CBO's baseline, starting in January 1996. Each of the three rules is roughly symmetrical; the impacts of faster growth, lower inflation, or lower interest rates would be about the same size as those shown in Table C-1, but with the opposite sign. Sustained errors of 0.1 or 1 percentage point are used for the sake of simplicity; they do not represent typical forecasting errors.

Each year, CBO presents rules of thumb in its annual report. Their magnitudes always change somewhat from year to year because of the intervening growth in the economy (principally affecting revenues), changes in interest rates, and new projections of growth in benefit programs. This year's rules,

however, reflect a substantial shift in emphasis. Previously, CBO produced estimates of the effects of different economic assumptions on projections during a six-year budget period. The estimates of the effects of changes in real growth and unemployment were generally intended to reflect possible cyclical changes in the economy. Because CBO has now begun to produce budget projections for 11 years, and because there is great interest in what the budget will look like in the later years of the projection period, CBO's approach to the rules of thumb has changed.

For instance, the new rule of thumb for real growth is an illustration of the change in the budget if the growth of potential gross domestic product (GDP) departs from the baseline, not an illustration of the effects of a cyclical change. As a result, the rule of thumb has been recast as a 0.1 percentage-point decline in real growth instead of the 1 percentage-point change assumed in the past. Although it was not unreasonable to assume that real growth could be 1 percentage point lower than CBO's baseline over the next few years because of cyclical effects, it does not seem at all realistic to assume that real growth could be as much as 1 percentage point lower than the baseline projections for the next 10 years. In addition, because the unemployment effect that used to be included in the real growth rule of thumb and the unemployment rule of thumb itself were measures of cyclical effects, both have been eliminated.

As noted below, these rules of thumb are highly simplified and should be used with caution. Budget projections are also subject to other kinds of errors

**Table C-1.**  
**Effects of Selected Economic Changes on CBO Budget Projections**  
**(By fiscal year, in billions of dollars)**

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>Real Rate of Growth Is 0.1 Percentage Point a Year Lower Beginning in January 1996</b>											
Change in Revenues	-1	-2	-4	-6	-8	-10	-13	-16	-19	-22	-26
Change in Outlays											
Net interest (Debt service)	a	a	a	1	1	2	2	3	5	6	8
Change in Deficit	1	2	4	7	9	12	16	19	24	29	34
<b>Inflation Rate Is 1 Percentage Point a Year Higher Beginning in January 1996<sup>b</sup></b>											
Change in Revenues	8	23	38	55	73	92	114	138	164	193	224
Change in Outlays											
Net interest											
Higher rates	3	15	23	29	34	38	42	46	50	54	58
Debt service	a	a	a	a	1	2	4	5	7	8	11
Discretionary spending	0	3	8	13	19	26	33	40	48	57	66
Mandatory spending	<u>a</u>	<u>5</u>	<u>14</u>	<u>24</u>	<u>35</u>	<u>47</u>	<u>58</u>	<u>74</u>	<u>91</u>	<u>109</u>	<u>128</u>
Total	3	23	44	66	89	113	136	165	195	228	263
Change in Deficit	-5	1	6	12	16	20	22	28	31	35	39
<b>Interest Rates Are 1 Percentage Point a Year Higher Beginning in January 1996</b>											
Change in Revenues	0	0	0	0	0	0	0	0	0	0	0
Change in Outlays											
Net interest											
Higher rates	3	15	23	29	34	38	42	46	50	54	58
Debt service	a	1	2	3	5	8	11	14	18	22	26
Mandatory spending	<u>a</u>	<u>a</u>	<u>a</u>	<u>a</u>	<u>a</u>	<u>a</u>	<u>a</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
Total	3	16	25	32	40	46	53	60	68	76	85
Change in Deficit	3	16	25	32	40	46	53	60	68	76	85

SOURCE: Congressional Budget Office.

a. Less than \$500 million.

b. Assuming that discretionary spending grows with inflation.

that are technical in nature and not directly related to economic forecasting. There is no way, however, to develop rules of thumb for those other uncertainties.

## Real Growth

Strong economic growth narrows the federal budget deficit and weak economic growth widens it. The first rule of thumb produces an estimate of the budgetary impact of economic growth that is slightly weaker than that assumed in CBO's baseline.

In CBO's baseline, growth of real GDP averages slightly above 2 percent a year. Subtracting 0.1 percentage point from the rate of real growth, beginning in January 1996, implies slightly slower growth throughout the projection period. Under that slow-growth scenario, GDP lies roughly 1 percent below CBO's baseline assumption by 2006.

The same scenario implies lower growth in taxable incomes, leading to revenue losses that mount from \$1 billion in 1996 to \$26 billion in 2006 (see

Table C-1). The loss in revenues in 2006 is roughly 1 percent of baseline revenues, on a par with the loss in GDP. In addition, the government borrows more and incurs greater debt-service costs. In sum, the deficit in 2006 would be an estimated \$34 billion (or 8 percent) larger than in CBO's baseline.

## Inflation

Inflation produces effects on the federal budget that largely offset each other. The second rule of thumb generates estimates of the budgetary impact of inflation that is 1 percentage point higher than CBO's baseline assumption. If other economic variables are not affected, higher inflation leads to larger taxable incomes and hence greater revenues. But higher inflation also boosts spending. Nearly all benefit programs would cost more, although with a lag; so would discretionary programs, unless policymakers decided to ignore the steady erosion of real budget resources. And interest rates would almost surely rise with inflation, fueling higher debt-service costs.

**Table C-2.**  
Effects on Budget Projections of a Change in CBO's Projection of Inflation,  
Assuming Discretionary Spending Remains Level (By fiscal year, in billions of dollars)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Change in Revenues	8	23	38	55	73	92	114	138	164	193	224
Change in Outlays											
Net interest											
Higher rates	3	15	23	29	34	38	42	46	50	54	58
Debt service	a	a	a	-1	-1	-1	-2	-3	-4	-6	-9
Discretionary spending	0	0	0	0	0	0	0	0	0	0	0
Mandatory spending	a	5	14	24	35	47	58	74	91	109	128
Total	3	20	36	52	68	83	98	117	136	157	178
Change in Deficit	-5	-2	-2	-3	-5	-9	-16	-21	-28	-36	-46

SOURCE: Congressional Budget Office.

NOTE: Inflation is assumed to grow at a 1 percentage-point higher annual rate beginning in January 1996.

a. Less than \$500 million.

Higher inflation has little effect on the deficit initially, as revenues rise almost in tandem with outlays. The extra spending eventually overtakes the additional revenues, however, increasing the deficit by an estimated \$39 billion in 2006.

The effects of inflation on the budget are subtle, and varying conclusions are possible if one or two key assumptions are changed. The assumption that interest rates rise in step with inflation is crucial--it contributes \$58 billion in extra spending by 2006. The treatment of discretionary programs is also critical. Because discretionary spending is controlled by annual appropriation acts, both the appropriate method of projecting discretionary spending under current policies and the effect of inflation on those projections are ambiguous.

As discussed in Chapter 2, CBO uses two different approaches in projecting discretionary spending. Both approaches begin with the actual level of appropriations enacted in the current year--in this instance 1996. The first assumes that appropriations grow with inflation, although they will be somewhat constrained in 1998 by the statutory caps that are in place through 1998 (under the law, the caps themselves are adjusted for changes in inflation). The other approach assumes that the 1996 dollar level is appropriated each year through 2006. Under the first approach to projecting discretionary spending, a 1 percentage-point increase in inflation generates extra discretionary spending of \$3 billion in 1997 and \$66 billion in 2006 (see Table C-1). Under the second approach, inflation has no effect on discretionary spending. In that case, the assumed increase in the rate of inflation generates a reduction in the deficit of \$46 billion in 2006 (see Table C-2). This beneficial effect on the deficit has a hidden cost: an erosion of the real resources for discretionary programs.

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## Interest Rates

The final rule of thumb illustrates the sensitivity of the budget to interest rates. The Treasury finances the government's large and growing debt at market interest rates. Assuming that interest rates are 1 percentage point higher than in the baseline for all matu-

rities in each year, while assuming that all other economic variables are unchanged, would drive up interest costs by more than \$3 billion in 1996. That initial boost in interest costs is fueled largely by the extra costs of refinancing the government's short-term Treasury bills, which make up almost one-fourth of the marketable debt. More than \$800 billion worth of Treasury bills are now outstanding, all of them maturing within the next year.

The bulk of the marketable debt, however, consists of medium- and long-term securities, mainly those with initial maturities of two to 10 years. Inevitably, many of those securities will come due for refinancing over the next several years. And the Treasury continually adds new debt to finance the deficit. Thus, the budgetary effects mount as more and more debt is hit with higher interest rates. By 2006, the vast majority of the debt would be affected. Of the marketable debt outstanding at the end of that year, CBO estimates that more than 47 percent would have been originally borrowed in the 1996-2006 period and therefore would be affected by higher rates. About 39 percent would have been outstanding in early 1996 and then refinanced during the 1996-2006 period. Only about 14 percent of the debt would be unaffected by higher interest rates. As a result of the rise in interest rates, the deficit in 2006 would increase by \$85 billion.

This rule of thumb incorporates small changes in other interest-sensitive spending, primarily student loans, but it does not include any possible effects on revenues of such a large change in interest rates. In CBO's calculation of the economic effects of deficit reduction, the drop in interest rates caused by deficit reduction is assumed to reduce the interest income share in GDP, raise the corporate profits share, and reduce Federal Reserve earnings. On balance, such changes result in higher revenues. Higher interest rates, conversely, would result in lower revenues. Those economic effects are omitted from this rule of thumb because many users of these rules are interested in only the direct effect of higher interest rates on the deficit, excluding effects on income shares and other macroeconomic variables. If those effects were included, however, the deficit would be higher by an additional \$15 billion in 2002 and \$20 billion in 2006.

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# The Federal Sector of the National Income and Product Accounts

In addition to the usual budget presentation, the economic influence of federal government revenues and spending can be portrayed through the national income and product accounts (NIPAs). The NIPAs provide a picture of government activity in terms of production, distribution, and use of output. That approach recasts the government's transactions into categories that affect gross domestic product, income, and other macroeconomic totals, thereby helping to trace the relationship between the federal sector and other areas of the economy.

This year the federal NIPAs have changed somewhat from the past. As part of a major revision of the full set of NIPA accounts, the Bureau of Economic Analysis (BEA) has changed its treatment of government investment and capital consumption and its treatment of contributions to federal employee retirement programs.

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## Relationship Between the Budget and the NIPAs

A handful of major differences distinguish the NIPA version of federal receipts and expenditures from its budgetary counterpart. One example is the shift of selected dollars from the spending to the receipts side of the budget. Such shifts are referred to as *netting and grossing* adjustments. For the most part, they

affect receipts that the budget records as negative outlays because they are either voluntary or intrabudgetary in nature and are not considered results of the government's taxing power. To give a more comprehensive picture of receipts from all sources in the economy, the NIPAs shift those negative outlays from the expenditures to the receipts side of the ledger (see Table D-1). That shift does not affect the deficit.

Foremost among netting and grossing adjustments are voluntary premiums for Medicare coverage (\$20 billion in 1996) and intrabudgetary receipts for retirement contributions on behalf of federal workers (\$66 billion in 1996). The BEA revised its treatment of retirement contributions this year and now counts their actual amount instead of imputing them to be equal to benefits paid. This change increases the netting and grossing adjustment. Another relatively large item is deposit insurance premiums. Deposit insurance outlays are financed in part by premiums levied on banks and thrift institutions; those premiums boosted the netting and grossing adjustment by \$7 billion in 1995 but by just \$2 billion each year thereafter. A netting and grossing item that has recently become important is the Federal Communications Commission's auctions of the electromagnetic spectrum. Auction receipts are expected to total \$5 billion in 1996 and \$12 billion in 1997.

By contrast, other differences between the federal budget and the NIPAs do affect the deficit. The

**Table D-1.**  
**Relationship of the Budget to the Federal Sector of the**  
**National Income and Product Accounts (By fiscal year, in billions of dollars)**

	Actual 1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>Receipts</b>												
Revenue (Budget basis) <sup>a</sup>	1,355	1,428	1,483	1,544	1,609	1,681	1,758	1,840	1,931	2,023	2,124	2,232
Differences												
Netting and grossing												
Government contributions for employee retirement	68	66	68	70	72	75	78	82	85	89	93	96
Medicare premiums	20	20	21	23	24	25	26	27	29	30	31	32
Deposit insurance premiums	7	2	2	2	2	2	2	2	2	2	2	2
Other	3	5	12	2	-1	-2	-2	-1	-2	-4	-4	-6
Geographic exclusions	-3	-3	-3	-3	-3	-3	-3	-3	-4	-4	-4	-4
Other	<u>13</u>	<u>8</u>	<u>3</u>	<u>3</u>	<u>1</u>	<u>-1</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>5</u>	<u>4</u>	<u>4</u>
Total	108	98	103	98	96	97	103	108	113	119	122	125
Receipts (NIPA basis)	1,463	1,527	1,587	1,642	1,705	1,778	1,861	1,949	2,044	2,142	2,246	2,357
<b>Expenditures</b>												
Outlays (Budget basis) <sup>a</sup>	1,519	1,572	1,654	1,737	1,828	1,925	2,016	2,125	2,242	2,365	2,500	2,636
Differences												
Netting and grossing												
Government contributions for employee retirement	68	66	68	70	72	75	78	82	85	89	93	96
Medicare premiums	20	20	21	23	24	25	26	27	29	30	31	32
Deposit insurance premiums	7	2	2	2	2	2	2	2	2	2	2	2
Other	3	5	12	2	-1	-2	-2	-1	-2	-4	-4	-6
Lending and financial transactions												
Deposit insurance	11	8	2	-1	-1	-1	-2	-2	-3	-3	-3	-3
Other	-5	4	3	1	b	b	-1	-1	-1	-2	-1	-2
Defense timing adjustment	1	5	5	1	1	1	1	1	1	1	1	1
Geographic exclusions	-9	-9	-10	-10	-11	-11	-12	-12	-13	-13	-14	-15
Treatment of investment and capital consumption	6	9	8	10	10	10	10	10	10	10	10	10
Other	<u>11</u>	<u>7</u>	<u>3</u>	<u>4</u>	<u>4</u>	<u>-1</u>	<u>8</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>-2</u>	<u>5</u>
Total	111	117	114	102	100	98	110	109	113	115	112	121
Expenditures (NIPA basis)	1,630	1,690	1,768	1,839	1,928	2,023	2,127	2,235	2,355	2,480	2,612	2,757
<b>Deficit</b>												
Deficit (Budget basis) <sup>a</sup>	164	144	171	194	219	244	259	285	311	342	376	403
Differences												
Lending and financial transactions												
Defense timing adjustment	1	5	5	1	1	1	1	1	1	1	1	1
Geographic exclusions	-7	-7	-7	-7	-8	-8	-8	-9	-9	-10	-10	-11
Treatment of investment and capital consumption	6	9	8	10	10	10	10	10	10	10	10	10
Other	<u>-2</u>	<u>b</u>	<u>b</u>	<u>b</u>	<u>3</u>	<u>b</u>	<u>7</u>	<u>2</u>	<u>2</u>	<u>-1</u>	<u>-6</u>	<u>-2</u>
Total	3	19	11	4	4	1	7	1	b	-4	-10	-3
Deficit (NIPA basis)	167	163	182	198	223	245	266	286	311	338	366	400

SOURCE: Congressional Budget Office.

a. Includes Social Security and the Postal Service.

b. Less than \$500 million.

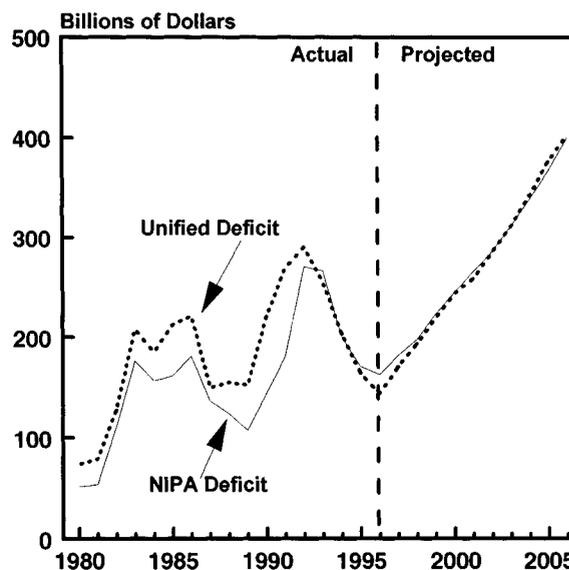
NIPA totals exclude transactions that involve the transfer of existing assets and liabilities and therefore do not contribute to current income and production. Prominent among such *lending and financial* adjustments are those for deposit insurance outlays and cash flows for direct loans made by the government before credit reform. Other factors driving a wedge between budget and NIPA deficit accounting include *geographic adjustments* (the exclusion of Puerto Rico, the Virgin Islands, and a few other areas from the national economic statistics) and *timing adjustments* (such as correcting for irregular numbers of benefit checks or paychecks because of calendar quirks).

Another difference between the NIPA and unified budgets lies in their differing treatment of *investment and capital consumption*. The unified budget includes all expenditures of the federal government, including investment purchases such as buildings and aircraft carriers. The NIPA budget has been recently revised and now shows the current or operating account for the federal government; consequently, government investment is left out and the government's consumption of fixed capital (depreciation) is included. (Government investment does not disappear but is classed along with private investment rather than in the government accounts.) The inclusion of depreciation in the NIPA budget parallels the treatment of the private sector, where the accounts have long recognized the depreciation of fixed capital. The revised NIPA treatment of the federal budget largely follows and supplants the "capital budget" that in recent years has been published in the supporting volumes of the President's annual budget.

CBO estimates that consumption of capital will be \$6 billion greater than new investment in 1996 and roughly \$10 billion greater in each of the following years. This difference increases the NIPA deficit in relation to the unified deficit.

In the early and mid-1980s, the NIPA deficit and the unified budget deficit generally paralleled each other, and the NIPA deficit was several billion dollars lower than its budgetary counterpart (see Figure D-1). Since then, the difference between the two has fluctuated widely because of large swings in lending and financial exclusions. For example, sizable deposit insurance outlays in 1989 through 1991 signifi-

**Figure D-1.**  
**A Comparison of NIPA and Unified Budget Deficits, Fiscal Years 1980-2006**



SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

NOTE: NIPA = national income and product accounts.

cantly widened the gap between the NIPA and unified budget deficits. Since 1992, when deposit insurance spending plummeted, the gap between the NIPA and unified measures has narrowed. In CBO's new projections, the NIPA deficit will be \$19 billion greater than the unified deficit in 1996 and grow closer to it in time.

## NIPA Receipts and Expenditures

The federal sector of the NIPAs generally classifies receipts according to their source and expenditures according to their purpose and destination (see Table D-2).

The leading source of receipts for the federal government in the 1996-2006 period is taxes and fees paid by individuals. Following that category closely are contributions (including premiums) for social

**Table D-2.**  
**Projections of Baseline Receipts and Expenditures Measured by the**  
**National Income and Product Accounts (By fiscal year, in billions of dollars)**

	Actual 1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
<b>Receipts</b>												
Personal Tax and Nontax Receipts	607	649	673	707	743	783	825	869	914	963	1,015	1,070
Corporate Profits Tax Accruals	183	181	185	186	185	186	190	197	204	215	225	237
Indirect Business Tax and Nontax Accruals	92	94	103	95	95	97	100	103	109	111	113	116
Contributions for Social Insurance	<u>581</u>	<u>602</u>	<u>625</u>	<u>653</u>	<u>681</u>	<u>712</u>	<u>745</u>	<u>780</u>	<u>816</u>	<u>853</u>	<u>893</u>	<u>934</u>
<b>Total</b>	<b>1,463</b>	<b>1,527</b>	<b>1,587</b>	<b>1,642</b>	<b>1,705</b>	<b>1,778</b>	<b>1,861</b>	<b>1,949</b>	<b>2,044</b>	<b>2,142</b>	<b>2,246</b>	<b>2,357</b>
<b>Expenditures</b>												
Consumption												
Defense consumption	243	243	249	252	259	269	271	283	292	301	314	321
Consumption of fixed defense capital	60	62	63	65	67	69	71	73	76	78	80	83
Nondefense consumption	141	140	147	151	157	163	168	173	181	186	192	197
Consumption of fixed nondefense capital	<u>11</u>	<u>11</u>	<u>11</u>	<u>12</u>	<u>12</u>	<u>13</u>	<u>13</u>	<u>14</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>16</u>
Subtotal	455	455	470	480	496	514	524	544	563	580	602	617
Transfer Payments												
Domestic	697	742	789	837	886	937	992	1,050	1,112	1,180	1,251	1,330
Foreign	<u>16</u>	<u>13</u>	<u>13</u>	<u>13</u>	<u>14</u>	<u>14</u>	<u>14</u>	<u>14</u>	<u>15</u>	<u>15</u>	<u>15</u>	<u>16</u>
Subtotal	713	756	803	850	900	951	1,006	1,064	1,127	1,195	1,266	1,346
Grants-in-Aid to State and Local Government	204	218	228	241	256	270	287	306	327	350	375	402
Net Interest	225	228	231	242	255	266	280	294	310	328	345	365
Subsidies Less Current Surplus of Government Enterprises	33	33	36	37	34	36	38	37	39	40	41	43
Required Reductions in Discretionary Spending <sup>a</sup>	<u>n.a.</u>	<u>n.a.</u>	<u>n.a.</u>	<u>-12</u>	<u>-12</u>	<u>-14</u>	<u>-8</u>	<u>-11</u>	<u>-12</u>	<u>-13</u>	<u>-17</u>	<u>-15</u>
<b>Total</b>	<b>1,630</b>	<b>1,690</b>	<b>1,768</b>	<b>1,839</b>	<b>1,928</b>	<b>2,023</b>	<b>2,127</b>	<b>2,235</b>	<b>2,355</b>	<b>2,480</b>	<b>2,612</b>	<b>2,757</b>
<b>Deficit</b>												
Deficit	167	163	182	198	223	245	266	286	311	338	366	400

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

a. Unspecified reductions needed to reach CBO's capped baseline.

insurance, such as Social Security, Medicare, unemployment insurance, and federal employees' retirement. The two categories are expected to raise around \$650 billion and \$600 billion, respectively, in 1996. The remaining categories are accruals of taxes on corporate profits, including the earnings of the Federal Reserve System, and indirect business tax (chiefly excise taxes) and nontax accruals (chiefly fees).

Government expenditures are classified according to their purpose and destination. Defense and nondefense consumption of goods and services are purchases made by the government for immediate use. The largest share of current consumption is compensation of federal employees. Consumption of fixed government capital (depreciation) is the use the government gets from its fixed assets.

Transfer payments are cash payments made directly to people or foreign nations. Grants-in-aid are payments made by the federal government to state or local governments. They are then used by the states or localities for transfers (such as Medicaid), consumption (such as school lunches), or investment (such as highway construction).

Although both the budget and the NIPAs contain a category labeled "net interest," the NIPA figure is smaller. A variety of differences cause the two measures to diverge. The largest is the contrasting treatment of interest received on late payments of personal and business taxes. In the budget, both types of payments are counted on the revenue side, as individual income taxes and corporate income taxes, respectively. In the NIPAs, those differences appear as offsets to federal interest payments, thereby lowering net interest payments by \$11 billion to \$17 billion each year through 2006.

The category labeled "subsidies less current surplus of government enterprises" contains two compo-

nents, as its name suggests. The first--subsidies--is defined as monetary grants paid by government to businesses, including state and local government enterprises such as public housing. Subsidies are dominated by housing assistance, which accounts for approximately two-thirds of 1996 subsidy expenditures.

The second portion of the category is the current surplus of government enterprises. Government enterprises are certain business-type operations of the government--for example, the Postal Service. The operating costs of government enterprises are mostly covered by the sale of goods and services to the public rather than by tax receipts. The difference between sales and current operating expenses is the enterprise's surplus or deficit. In 1996, the current surplus of government enterprises will be approximately \$500 million. *Government enterprises* should not be confused with *government-sponsored enterprises* (GSEs), private entities established and chartered by the federal government to perform specific financial functions, usually under the supervision of a government agency. Examples of GSEs include the Federal National Mortgage Association (Fannie Mae) and the Student Loan Marketing Association (Sallie Mae). As privately owned organizations, GSEs are not included in the budget or in the federal sector of the NIPAs.

A final category under expenditures is required reductions in discretionary spending (see Table D-2). That is not a category in the NIPAs but is an accounting for policy changes that must be made in the future. Policymakers must comply with future discretionary spending caps but may do so in any number of ways. Unspecified savings of \$12 billion in 1998 and larger amounts thereafter will thus be required. Those savings cannot be assigned to particular NIPA categories; however, they are most likely to come from defense and nondefense consumption and grants to states and local governments.

