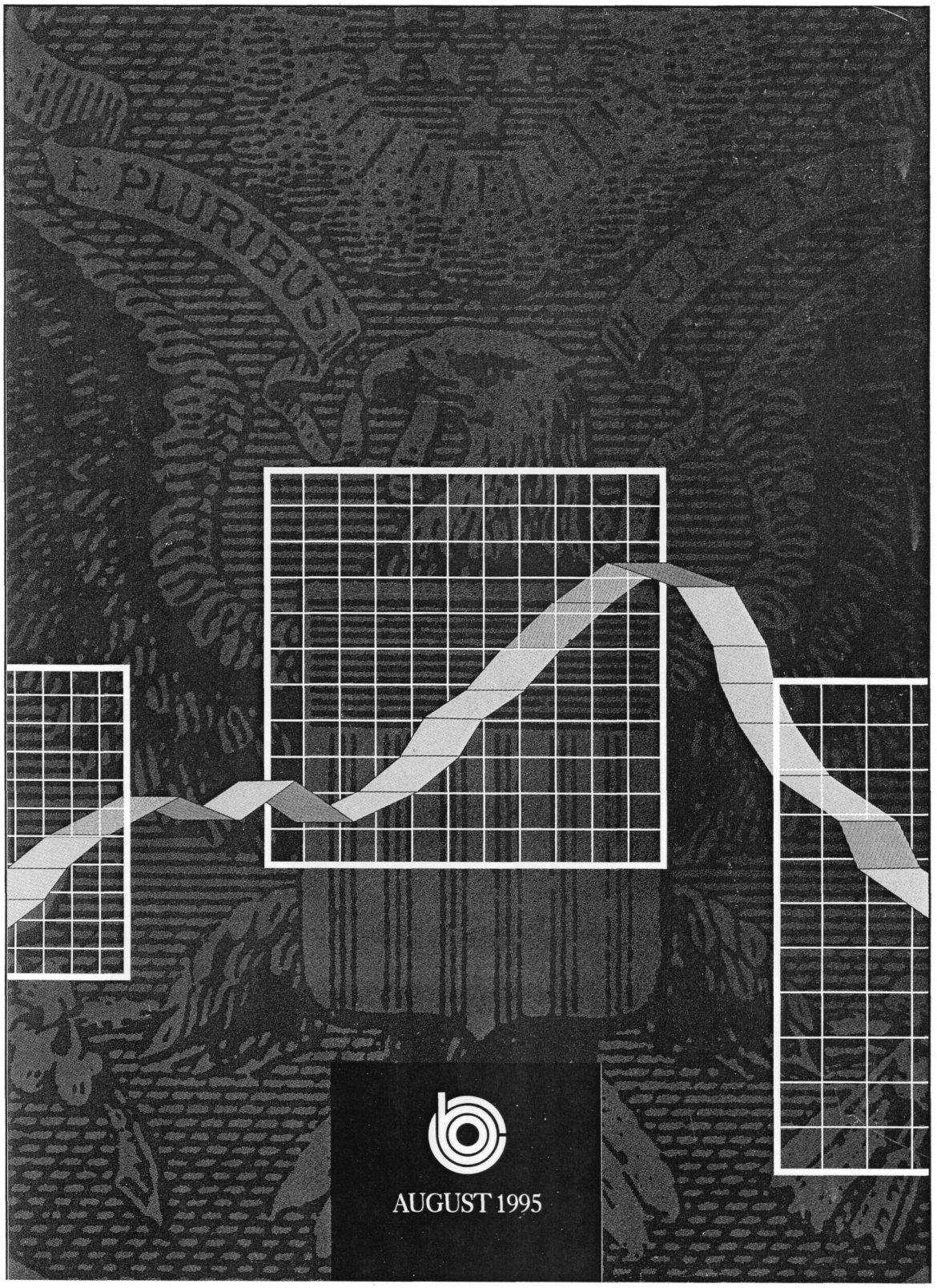
CONGRESS OF THE UNITED STATES
CONGRESSIONAL BUDGET OFFICE

AN

The Economic and Budget Outlook

UPDATE



AUGUST 1995

THE ECONOMIC AND BUDGET OUTLOOK: AN UPDATE

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Congressional Budget Office

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NOTES

Unless otherwise indicated, all years referred to in Chapter 1 are calendar years and all years in Chapter 2 are fiscal years.

Some figures in Chapter 1 indicate periods of recession using shaded vertical bars. The bars extend from the peak to the trough of the recession.

The economic outlook discussed in Chapter 1 is considered to be a forecast through the end of 1996 and a projection for 1997 through 2005. The forecast attempts to anticipate the cyclical movements in the economy and the effects of fiscal policy on the year-to-year changes in economic activity. The economic projection is designed to estimate the growth rates that will prevail on average for the entire period.

Unemployment rates throughout the report are calculated on the basis of the civilian labor force.

Numbers in the text and tables may not add to totals because of rounding.

National income and product account data shown in the tables do not incorporate the data for the second quarter of 1995, which were released on July 28, 1995.

Preface

This volume is one of a series of reports on the state of the economy and the budget that the Congressional Budget Office (CBO) issues each year. It satisfies the requirement of section 202(f) of the Congressional Budget Act of 1974 for CBO to submit periodic reports to the Committees on the Budget with respect to fiscal policy and to provide five-year baseline projections of the federal budget. In accordance with CBO's mandate to provide objective and impartial analysis, the report contains no recommendations.

The analysis of the economic outlook presented in Chapter 1 was prepared by the Macroeconomic Analysis Division under the direction of Robert Dennis and John F. Peterson. Robert Arnold wrote the chapter. Matthew Salomon carried out the economic forecast and projections. Laurie Brown, Douglas Elmendorf, Victoria Farrell, Douglas Hamilton, Adrienne Kearney, Kim Kowalewski, Joyce Manchester, Angelo Mascaro, Benjamin Page, Frank Russek, Matthew Salomon, John Sturrock, and Christopher Williams provided comments and background analysis. Matthew Salomon and Laurie Brown wrote Appendix A, and John F. Peterson wrote Appendix B. Derek Briggs, John Romley, and Jennifer Wolfson provided research assistance.

The baseline outlay projections were prepared by the staff of the Budget Analysis Division under the supervision of Paul N. Van de Water, Robert Sunshine, Paul Cullinan, Peter Fontaine, James Horney, Michael Miller, and Murray Ross. The revenue estimates were prepared by the staff of the Tax Analysis Division under the supervision of Rosemary D. Marcuss and Richard Kasten. Jeffrey Holland wrote Chapter 2, with assistance from Susan Strandberg and Michael Simpson, and Chapter 4. Robert Dennis and James Horney wrote Chapter 3. Daniel Kowalski wrote Appendix C, Jeffrey Lemieux wrote Appendix D, and James Horney wrote the summary of the report.

An early version of the economic forecast underlying this report was discussed at a meeting of CBO's Panel of Economic Advisers. Members of this panel are Michael Boskin, Barry P. Bosworth, Robert Dederick, Martin Feldstein, Benjamin Friedman, Lyle E. Gramley, Robert E. Hall, Marvin Kosters, Anne Krueger, Burton Malkiel, Gregory Mankiw, Allan Meltzer, Rudolph Penner, James Poterba, William Poole, Robert Reischauer, Sherwin Rosen, Robert Solow, John Taylor, and James Tobin. Richard Berner, David Bradford, Enrique Mendoza, and Robert Van Order attended as guests. Although these outside advisers provided considerable assistance, this document does not necessarily reflect their views.

Paul L. Houts and Sherry Snyder edited the report, with the assistance of Christian Spoor. The authors owe thanks to Marion Curry, Dorothy Kornegay, and Linda Lewis, who assisted in the preparation of the report. Kathryn Quattrone prepared it for final publication.

June E. O'Neill
Director

August 1995

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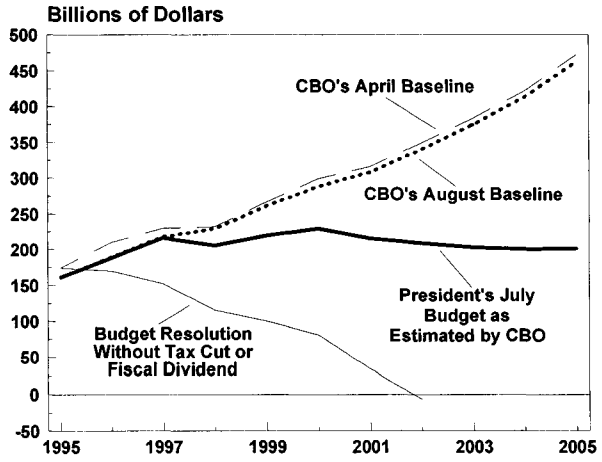
Summary

The Congressional Budget Office (CBO) projects that this year's deficit will be $161 billion--the lowest in relation to the size of the economy since 1979. Nevertheless, although the deficit for fiscal year 1995 is $13 billion lower than CBO estimated in April, CBO's longer-term projections of federal spending and revenues under current policies have changed little since it published its April baseline (see Summary Figure 1). CBO still believes that, after declining for three consecutive years, the deficit will begin to grow again in fiscal year 1996 if current laws affecting the budget do not change. Assuming that discretionary spending increases at the rate of inflation after the statutory caps on such spending expire in 1998, CBO projects that the deficit will rise to $462 billion in 2005. The increase is not as steep in those CBO projections that assume discretionary spending is frozen at the nominal 1998 level, but the deficit still climbs to $292 billion in 2005.

Summary Figure 1.
Comparison of Projected Deficits (By fiscal year)



SOURCE: Congressional Budget Office.

In a similar vein, since its last forecast CBO has lowered its estimate of economic growth and interest rates for the current year, but it has not changed its assessment of longer-term economic trends in any significant way. The real growth of only 1.3 percent now forecast for calendar year 1995 represents a dramatic slowdown from the 4.1 percent rate of growth experienced during 1994. It is also markedly slower than the 2.5 percent CBO forecast last winter. Some analysts fear that the slow growth recorded in the first half of 1995 might signal the early stages of a recession. Although CBO recognizes the possibility that a recession might occur, the economy appears to be fundamentally sound and the usual signs of an impending recession are absent. CBO's forecast assumes that the pace of economic growth will pick up in 1996, with output increasing at a real (inflation-adjusted) rate of 2.3 percent.

Neither the recent performance of the economy nor any other development prompted a substantial change in CBO's longer-term economic projections. CBO projects that the economy will grow in real terms at an average rate of 2.4 percent a year after 1996--the rate at which CBO estimates gross domestic product (GDP) can rise without triggering higher inflation.

CBO's economic and budget projections assume that current laws and policies governing federal spending and revenues will continue unchanged. The Congress and the President have separately advanced blueprints of major changes in those policies, but laws have not yet been enacted to carry out their proposals. The Congress has adopted a plan--a budget

resolution--to reach a balanced budget in 2002. The plan assumes that discretionary spending in 2002 will be below the nominal level of appropriations provided for 1995 and that mandatory spending (excluding interest payments) will be $161 billion lower in 2002 than is projected under current law. The resolution also allows a tax cut of $245 billion over seven years if CBO certifies that the rest of the budget plan is being carried out as planned. In addition, the President has proposed a plan that the Administration estimates would produce a budget surplus in 2004 and 2005. According to CBO's estimates, however, achieving the savings proposed by the President--which are much smaller than those assumed by the budget resolution--would reduce the deficit to about $200 billion in those years.

Substantially slashing the deficit is likely to reduce interest rates and slightly increase economic growth compared with CBO's baseline economic projections. CBO has calculated that the economic improvements from balancing the budget by 2002 could cut interest costs and boost revenues for the federal government by $50 billion in 2002 and by a total of $170 billion in 1996 through 2002. The budget resolution takes this so-called fiscal dividend into account in calculating that the budget will be balanced even if the contingent tax cut is enacted.

The Economic Outlook

CBO forecasts that the economy will grow slowly this calendar year but will pick up next year. The forecast reflects both actual growth in the first half of 1995, which was slower than CBO expected in its winter forecast, and CBO's assessment that the economy is fundamentally sound. (CBO's winter forecast was published in January 1995 in *The Economic and Budget Outlook: Fiscal Years 1996-2000.*) CBO's longer-term economic projections are not substantially different than those it made in January. The economic forecast is based on current fiscal policy--it does not reflect potential changes that the Congress and the President have proposed.

The Forecast for 1995 and 1996

Sluggish demand in interest-sensitive areas such as residential construction and consumer durable goods (especially automobiles and furniture) held economic growth to an annual rate of 1.6 percent in the first six months of 1995. As a result, CBO forecasts that real GDP will increase by only 1.3 percent in 1995, on a fourth-quarter-to-fourth-quarter basis, which is significantly below the 2.5 percent envisioned for 1995 in the winter forecast (see Summary Table 1). As did most other forecasters, CBO considered whether the steep falloff from the rapid growth experienced in 1994 (4.1 percent) signaled a recession. CBO's forecast reflects the possibility that a recession could develop, but CBO has concluded that a higher probability exists that the economy will grow more rapidly in 1996. There is little evidence of the imbalances--rising inflation, swollen inventories, deteriorating balance sheets--that usually precede recessions.

CBO expects that the economy will grow by 2.3 percent in 1996. That rate is somewhat higher than the 1.9 percent it forecast last winter. CBO anticipated at that time that growth in 1995 would leave the economy a little above potential GDP (the level of real GDP that is consistent with a stable rate of inflation) and that a slight slowdown in 1996 brought on by restrictive monetary policy would bring it back in line with potential GDP. But slow growth in 1995 is likely to leave GDP near its potential level so that growth of 2.3 percent would not threaten an acceleration of inflation.

Interest rates on three-month Treasury bills have increased significantly from the unusually low 3.0 percent in 1993, but the 5.4 percent average rate forecast for 1995 is 0.8 percentage points (80 basis points) lower than CBO anticipated last winter. CBO expects that the rate will decline to 5.1 percent in 1996. The forecast for 10-year Treasury note rates--6.5 percent in 1995 and 6.4 percent in 1996--is also lower than was expected last winter. Moreover, weaker growth in 1995 is likely to push the expected unemployment rate somewhat higher than had been anticipated--to 5.7 percent in 1995 and 6.0 percent in

1996. The consumer price index for all urban consumers (CPI-U) is expected to increase at the moderate rate of 3.3 percent in 1995 and 3.4 percent in 1996, about the same as in the winter forecast.

Projections for the Years Beyond 1996

CBO projects that average annual real growth in GDP in 1997 through 2005 will be 2.4 percent--the rate at which CBO estimates potential real GDP will increase (see Summary Table 2). On average, the unemployment rate is expected to be about 6 percent during that period, a rate CBO estimates is consistent with steady inflation. Thus, CBO projects no additional inflationary pressures on average during the 1997-2005 period. The annual increase in the CPI-U is actually projected to fall from 3.4 percent in 1997 to 3.2 percent after 1998 because of a rebenchmarking of the index that the Bureau of Labor Statistics

Summary Table 1.
The CBO Forecast for 1995 and 1996

	1994[a]	Forecast 1995	Forecast 1996
	Fourth Quarter to Fourth Quarter (Percentage change)		
Nominal GDP			
CBO summer	6.5	3.8	5.1
CBO winter	6.3	5.3	4.7
Real GDP[b]			
CBO summer	4.1	1.3	2.3
CBO winter	3.7	2.5	1.9
Consumer Price Index[c]			
CBO summer	2.6	3.3	3.4
CBO winter	2.8	3.2	3.4
	Calendar Year Average (Percent)		
Civilian Unemployment Rate			
CBO summer	6.1	5.7	6.0
CBO winter	6.1	5.5	5.7
Three-Month Treasury Bill Rate			
CBO summer	4.2	5.4	5.1
CBO winter	4.2	6.2	5.7
Ten-Year Treasury Note Rate			
CBO summer	7.1	6.5	6.4
CBO winter	7.1	7.7	7.0

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Boad.

a. The numbers for 1994 are actual values for CBO's summer forecast but are estimates for the winter forecast.

b. Based on constant 1987 dollars.

c. The consumer price index for all urban consumers (CPI-U).

has planned for that year. CBO projects that interest rates will hold steady throughout the 1997-2005 period at 5.1 percent for three-month Treasury bills and 6.7 percent for 10-year Treasury notes. None of these projections represent a significant change from CBO's winter assumptions. One indication of how little the projections have changed is that the current projection of real GDP in 2005 is $6,904 billion, only $7 billion higher than CBO projected last winter.

Those projections for 1997-2005 do not reflect any attempt to forecast cyclical fluctuations in the economy. Beyond the two-year forecast period (1995 and 1996), CBO projects a course for the economy that will bring GDP to a level slightly below estimated potential output, which is consistent with the average historical relationship between actual and potential GDP. CBO forecasts that actual real GDP will reach that point at the end of 1996. Thus, real GDP is projected to grow at the same rate as potential output during the 1997-2005 period. The projection for potential GDP is based on an analysis of fundamental factors such as growth in the labor force, productivity, and national saving.

The Budget Outlook

Although CBO projects that the deficit will be $13 billion less in fiscal year 1995 than it anticipated last April, the essential budget outlook under current law has not changed. (The April baseline was described in CBO's *An Analysis of the President's Budgetary*

Summary Table 2.
The Economic Forecast and Projections for Calendar Years 1995 Through 2005

	Actual	Forecast		Projected								
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Nominal GDP (Billions of dollars)	6,738	7,058	7,385	7,764	8,165	8,587	9,032	9,497	9,986	10,501	11,042	11,610
Real GDP (Billions of 1987 dollars)	5,344	5,481	5,584	5,715	5,851	5,992	6,135	6,282	6,432	6,586	6,743	6,904
Real GDP (Percentage change)	4.1	2.6	1.9	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Implicit GDP Deflator (Percentage change)	2.1	2.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
CPI-U (Percentage change)[a]	2.6	3.1	3.4	3.4	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Unemployment Rate (Percent)	6.1	5.7	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Three-Month Treasury Bill Rate (Percent)	4.2	5.4	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Ten-Year Treasury Note Rate (Percent)	7.1	6.5	6.4	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7

SOURCE: Congressional Budget Office.

a. CPI-U is the consumer price index for all urban consumers.

Proposals for Fiscal Year 1996.) The deficit of $161 billion that CBO projects for 1995 would be the smallest since 1989. Measured as a percentage of gross domestic product, the deficit, at 2.3 percent, would be the smallest since 1979. In addition, 1995 will mark the third consecutive year the deficit has declined since the record deficit of $290 billion was posted in 1992. Unfortunately, CBO expects that it will begin steadily rising again after 1995 if current budgetary policies are not changed, growing from $161 billion in 1995 to $189 billion in 1996 (see Summary Table 3). Assuming that discretionary spending increased at the rate of inflation after the caps on it expire in 1998, the deficit would reach $462 billion in 2005.

CBO's baseline economic and budgetary projections assume current policies will continue. In the case of revenues and mandatory spending, CBO estimates the receipts and outlays that will occur if no changes are made in existing laws governing taxes and mandatory programs. In the case of discretionary spending, which is controlled by annual appropriation legislation, CBO assumes compliance with the statutory limits that cap appropriations through 1998. For the years after 1998, CBO produces two projections of discretionary spending. One projection assumes that total discretionary spending after 1998 will equal the level of the 1998 limit adjusted for inflation. The other projection assumes that discretionary spending will be frozen at the dollar level of the 1998 limit.

In CBO's projections with discretionary inflation after 1998, the deficit will reach $288 billion (3.2 percent of GDP) by 2000. CBO's extended projections of spending and revenues for the 2001-2005 period show a deficit of $462 billion (4 percent of GDP) in 2005. The projected deficit in CBO's base-

Summary Table 3.
CBO Deficit Projections (By fiscal year)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
					In Billions of Dollars						
Baseline Total Deficit											
With discretionary inflation after 1998	161	189	218	229	261	288	308	340	375	414	462
Without discretionary inflation after 1998	161	189	218	229	243	250	247	256	264	275	292
					As a Percentage of GDP						
Baseline Total Deficit											
With discretionary inflation after 1998	2.3	2.6	2.8	2.8	3.1	3.2	3.3	3.5	3.6	3.8	4.0
Without discretionary inflation after 1998	2.3	2.6	2.8	2.8	2.9	2.8	2.6	2.6	2.5	2.5	2.5

SOURCE: Congressional Budget Office.

NOTE: Caps on discretionary spending are set by law through 1998. Measures of the deficit "with discretionary inflation" assume that discretionary spending grows at the rate of inflation after 1998. Measures of the deficit "without discretionary inflation" assume that discretionary spending remains frozen in dollar terms at the level of the 1998 caps.

line without discretionary inflation after 1998 also generally continues to grow, although at a slower rate. CBO projects that freezing discretionary spending at the 1998 level would hold the deficit to $250 billion in 2000 and $292 billion in 2005. As a percentage of GDP, the deficit would grow to 2.8 percent in 2000 but then would decline to 2.5 percent in 2005.

The rapid growth in spending for the two big mandatory federal health programs (Medicare and Medicaid) continues to be the primary force driving up the deficit in CBO's projections. CBO projects that spending for the two programs under current laws will increase at an average annual rate of about 10 percent a year. By 2005, the combined spending for Medicare and Medicaid ($690 billion) will represent more than one-quarter of total federal outlays, up from 18 percent in 1995. Projected spending for interest on the federal debt will grow at a significantly slower rate (6 percent a year on average) but will still increase substantially (from $233 billion in 1995 to $415 billion in 2005). Other nondiscretionary spending in total will also grow at approximately 6 percent a year, only about 1 percentage point faster than the nominal rate of growth of the economy.

Revenues are expected to total $1,357 billion in 1995, equal to 19.4 percent of GDP. CBO projects that revenues under current laws will grow at slightly less than a 5 percent average annual rate over the 1995-2005 period, declining a little relative to the size of the economy. By 2005, revenues will total $2,175 billion, or 19 percent of GDP.

The Budget Resolution and the Economic Implications of Balancing the Budget

The budget resolution adopted by the Congress in June proposes dramatic changes in fiscal policy. Because the laws needed to implement the Congressional plan have not yet been enacted, the proposed changes are not reflected in CBO's baseline economic and budgetary projections.

The budget resolution assumes a balanced budget in 2002. The President has also called for a balanced budget in the July *Mid-Session Review of the 1996 Budget*, although his target date is 2004. CBO projects that the deficit will be close to $350 billion in 2002 and more than $400 billion in 2004 if no changes are made in current policy and if discretionary spending grows at the rate of inflation after the caps expire in 1998. The budget resolution is essentially based on CBO's April 1995 baseline economic and budgetary projections (which, as explained above, differ little from CBO's revised baseline projections that are detailed in Chapters 1 and 2). It accepts, therefore, that substantial changes in current policies are required to achieve budgetary balance in 2002. By contrast, because the Administration believes that deficits under current policies will be substantially lower than CBO projects, the President has proposed smaller savings. CBO estimates that, if the savings proposed by the President are achieved, the deficit would be reduced to about $200 billion in 2004 instead of being eliminated.

The budget resolution proposes tight constraints on total discretionary spending. The outlays of $515 billion that it proposes for 2002 would be $30 billion less than CBO estimates for 1995. Under the resolution's plan, all of this cut would come in nondefense programs; defense spending in 2002 would be approximately the same in nominal terms as in 1995. However, funds available for defense would be about 17 percent below the amount needed to keep pace with inflation. In inflation-adjusted terms, spending proposed by the resolution for nondefense programs in 2002 would be more than 30 percent below current spending for those activities.

Holding total discretionary spending to the $515 billion proposed by the budget resolution for 2002 would save $121 billion in that year compared with CBO's baseline with discretionary inflation. That represents a little less than one-third of the savings needed to balance the budget in that year. Under the budget resolution, an additional $161 billion in savings would come from changes in mandatory spending programs. The resolution assumes that a total of $125 billion of those mandatory savings in 2002 will come from Medicare ($71 billion) and Medicaid ($54 billion), with additional savings in a number of other programs. The remaining $66 billion in deficit re-

duction needed to reach a balanced budget in 2002 will come from diminished interest payments if policy changes reduce the deficit (and federal debt) by the assumed amounts in 1996 through 2002. That reduction in debt-service costs does not include any savings from lower interest rates that could result from eliminating the deficit.

The revenue levels stated in the budget resolution differ from current-law projections by about $1 billion in total over the 1996-2002 period. The resolution does, however, anticipate a tax cut that would reduce revenues by $50 billion in 2002 and $245 billion in 1996 through 2002. But the budget resolution provides that the Congress may not consider the tax cut unless the other legislative proposals being considered as part of the deficit reduction process would produce a balanced budget in 2002.

Enacting the tax cut envisioned by the resolution would, of course, reduce revenues below the levels stated in the budget resolution. The resolution assumes that the revenue loss will be offset by savings resulting from the economic effects of balancing the budget, which also were not included in the stated budget resolution numbers. In its April 1995 report, *An Analysis of the President's Budgetary Proposals for Fiscal Year 1996*, CBO estimated that balancing the budget by 2002 would over time lower interest rates by 100 to 200 basis points (1 to 2 percentage points) and increase the annual rate of real growth by about 0.1 percentage point. The extent of those effects is uncertain. However, CBO's estimates represent the middle ground of economic analysis on the subject. CBO calculates that such economic improvements would produce a fiscal dividend--lower federal interest payments and higher revenues--that would reduce the deficit by $50 billion in 2002 and $170 billion over the 1996-2002 period. The budget resolution assumes that this fiscal dividend would offset the anticipated tax cut in 2002 and would partially offset it in earlier years.

The Debt Limit

Since the Second Liberty Bond Act was passed in 1917, the Congress has enacted a series of statutory limits on federal borrowing. The current debt limit is $4.9 trillion. The limit applies to virtually all debt issued by the Treasury, including debt held by trust funds and other government accounts. CBO estimates that at the end of the current fiscal year debt subject to the limit will total slightly less than $4.9 trillion. Of that amount, $3.6 trillion is debt held by the public. An additional $1.3 trillion will be held by trust funds (the Social Security trust funds account for $0.5 trillion and the Civil Service Retirement trust fund for $0.4 trillion), with the remaining debt held in other government accounts. The debt limit may have served a useful purpose in controlling deficits when most federal spending was subject to annual appropriations. But now that about two-thirds of spending is mandatory, the debt limit is an ineffective budgetary tool. In recent years, the need to increase the debt has primarily served to provide a must-pass vehicle to which other legislation can be attached.

Federal borrowing will push debt to the limit sometime early in fiscal year 1996. That borrowing is driven both by spending that exceeds revenues (even under the budget resolution, deficit spending will continue until 2002) and by trust fund surpluses (those will require increases in the debt limit even after the budget has been balanced). Under normal operations, debt is likely to hit the ceiling sometime in October, though the Treasury may be able to delay any serious difficulties until November. At that point, however, if the debt limit has not been increased, the government will have to choose between defaulting on its obligations (such as paying Social Security benefits and interest on government securities) or taking steps (such as disinvesting trust funds) to free up room under the limit to allow additional borrowing from the public.

Debt has run up against the limit on a number of previous occasions. Those debt crises have been short-lived, however, and the Treasury has always managed to deal with them without taking any extreme actions. The United States government has never been forced to default on any obligations. A default could have grave consequences, prompting a loss of confidence in the government and a permanent increase in federal borrowing costs as investors decide that government debt is no longer free of risk of default.

Chapter One

The Economic Outlook

After a strong performance during 1994, the U.S. economy slowed to a crawl during the first half of 1995. Growth of real (inflation-adjusted) gross domestic product (GDP) averaged 4.1 percent during 1994, well above the economy's noninflationary growth potential, which the Congressional Budget Office (CBO) estimates to be 2.4 percent. Hence, some slowing was inevitable if a serious upturn in inflation was to be avoided. Nevertheless, the 1.6 percent rate of growth recorded during the first half of 1995 led some analysts to question whether the pause would be relatively brief or whether it signaled the early stages of a recession.

In CBO's judgment, a recession is unlikely to develop during 1995: aside from some pockets of weakness, the economy appears to be fundamentally sound. Most important, many of the imbalances that typically precede recessions--rising inflation, swollen inventory stocks, and deteriorating balance sheets--are absent from the economic landscape.

The Congressional Budget Office forecasts that the economy will continue to grow slowly for the remainder of the year, averaging 1.3 percent over the four quarters of 1995, and will then grow at a rate of 2.3 percent over 1996 (see Table 1 and Figure 1). CBO's forecast reflects the possibility that a recession will develop, but also incorporates the stronger probability that growth will be close to or even above the noninflationary potential for the economy. With slow growth this year, the unemployment rate is likely to rise slightly--from 5.7 percent in the second quarter to 6 percent in the middle of next year. Inflation is not likely to change much under those conditions, edging only marginally higher by the end of 1996, while interest rates will ease modestly over the same period.

CBO's current forecast is similar to the economic assumptions underlying the budget resolution that the Congress passed in June, which were nearly identical to those CBO published in its winter report.[1] Real growth is somewhat slower in 1995 and slightly faster in 1996 than the winter forecast projected, but the average rate of growth during the whole period from 1995 though 2002 is almost identical to that in the winter forecast. Interest rates are substantially lower than the winter forecast during 1995 and 1996, reflecting weaker growth in the near term, but rise thereafter to the same levels as the winter forecast. CBO's forecast for inflation is almost exactly the same as the winter forecast.

The Federal Reserve's tightening of monetary policy during 1994 slowed the economy sooner than expected, which caused the Federal Reserve to ease rates slightly in July 1995. Between February 1994 and February 1995, the Federal Reserve engineered a succession of interest rate hikes, attempting to cool an economy that was in danger of overheating. By taking steps to slow the economy early, the Federal Reserve hoped to avoid the severe tightening that has often preceded recessions in the past. On this occasion, the tightening of monetary policy affected the economy earlier than most analysts had anticipated. Last winter, CBO estimated that the tightening would begin to slow the economy during the last half of 1995; instead, the effects showed up during the first

1. The sole difference is that the budget resolution forecast included an adjustment for the anticipated revision to the consumer price index beginning in 1998. See Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1996-2000* (January 1995); and U.S. House of Representatives, *Concurrent Resolution on the Budget for Fiscal Year 1996*, Conference Report 104-159, to accompany H. Con. Res. 67 (June 26, 1995), p. 61.

Table 1.
The CBO Forecast for 1995 and 1996

	1994[a]	Forecast 1995	Forecast 1996
	Fourth Quarter to Fourth Quarter (Percentage change)		
Nominal GDP			
CBO summer	6.5	3.8	5.1
CBO winter	6.3	5.3	4.7
Real GDP[b]			
CBO summer	4.1	1.3	2.3
CBO winter	3.7	2.5	1.9
Implicit GDP Deflator			
CBO summer	2.2	2.5	2.7
CBO winter	2.5	2.8	2.8
Consumer Price Index[c]			
CBO summer	2.6	3.3	3.4
CBO winter	2.8	3.2	3.4
	Calendar Year Average (Percent)		
Real GDP Growth[b]			
CBO summer	4.1	2.6	1.9
CBO winter	4.0	3.1	1.8
Civilian Unemployment Rate			
CBO summer	6.1	5.7	6.0
CBO winter	6.1	5.5	5.7
Three-Month Treasury Bill Rate			
CBO summer	4.2	5.4	5.1
CBO winter	4.2	6.2	5.7
Ten-Year Treasury Note Rate			
CBO summer	7.1	6.5	6.4
CBO winter	7.1	7.7	7.0

SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board.

a. The numbers for 1994 are actual values for CBO's summer forecast but are estimates for the winter forecast.

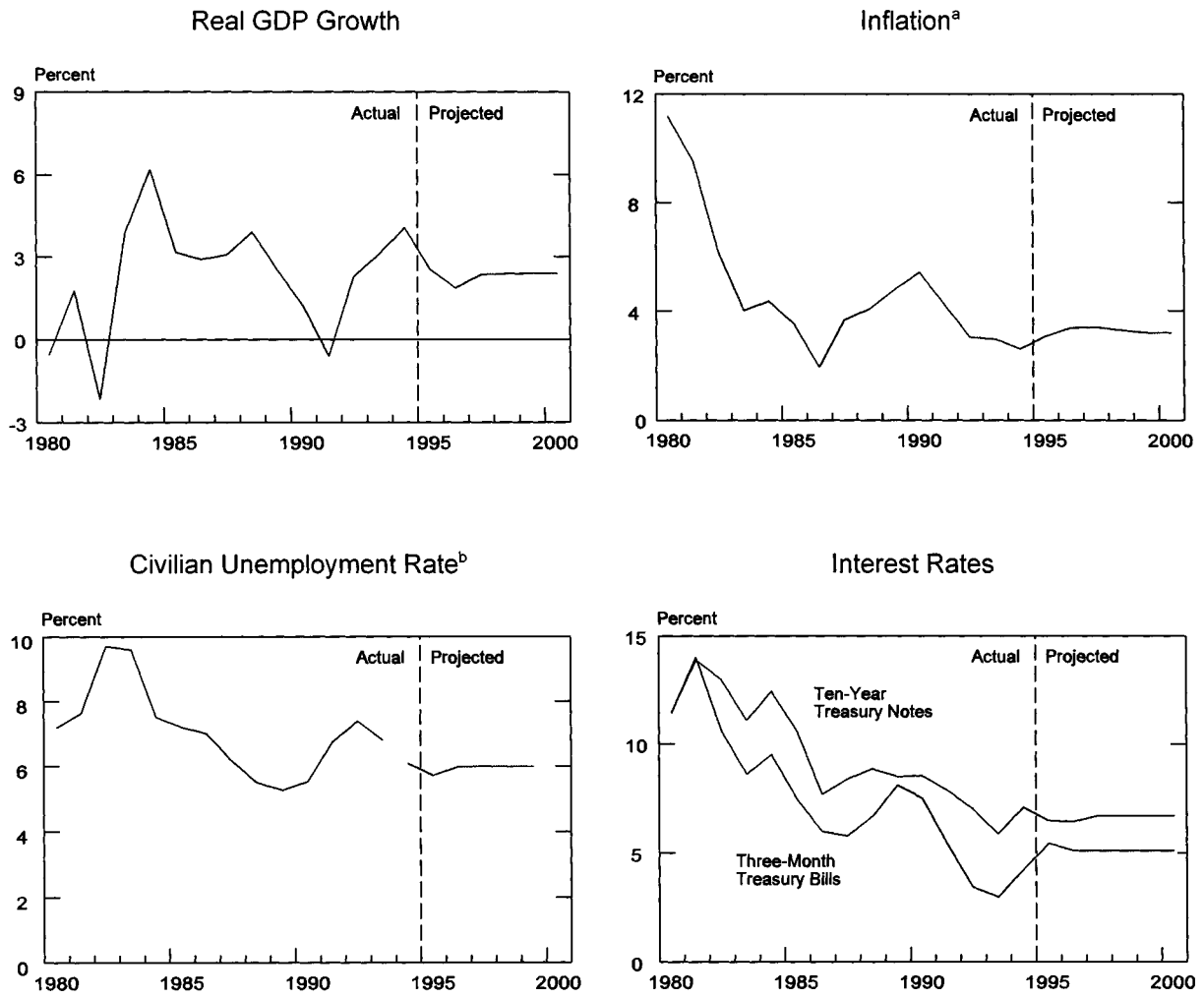
b. Based on constant 1987 dollars.

c. The consumer price index for all urban consumers (CPI-U).

half of the year. The Federal Reserve reacted cautiously to the signs of weakness, trimming the federal funds rate by only 25 basis points (a quarter of a percentage point) in early July.

Although CBO foresees economic growth approaching its potential rate by the middle of 1996, the current outlook holds substantial uncertainties. In particular, CBO's forecast presumes that the weakness some sectors have already experienced will not spread. A worse outcome could follow if producers, worried by weak demand for their goods, cut production further to pare inventory stocks. Reductions in employment and income could then prompt con-

Figure 1.
The Economic Forecast and Projections



SOURCES: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics; Department of Commerce, Bureau of Economic Analysis; Federal Reserve Board.

NOTE: All data are annual values; growth rates are year over year.

a. Consumer price index for all urban consumers (CPI-U). The treatment of home ownership in the official CPI-U changed in 1983. The inflation series in the figure uses a consistent definition throughout.

b. From 1994 on, the unemployment rate reported by the Bureau of Labor Statistics is not comparable with previous data. The discontinuity reflects an extensive revision of the survey's methodology. The CBO forecast is based on the new methods.

sumers to postpone purchases further, tipping the economy into recession.

Alternatively, the economy could roar back later this year. Economic growth of 4 percent would be easy to attain if companies continued to invest at their recent pace and if demand for consumer durable goods or housing showed signs of life. The Federal Reserve would then be likely to clamp down, raising interest rates to levels that would risk recession in 1996 or 1997.

Assuming that both of those extremes are avoided, the stage could be set for a renewed period of growth like that which followed the "growth recessions" of 1967 and 1986. In each of those years, the economy experienced a temporary slowdown, largely limited to the manufacturing sector, that relieved inflationary pressures and allowed several more years of economic expansion.

The economic forecast and projections presented in this chapter assume current fiscal policy; that is, they do not reflect the effects of the deficit reductions implied by the budget resolution. Chapter 3 examines the resolution and how implementing the fiscal policy it proposes might affect the economy.

CBO's next *Economic and Budget Outlook*, to be published in January or February of 1996, will incorporate new measures of real GDP. The Bureau of Economic Analysis at the Department of Commerce, the keepers of the national income and product accounts, will switch to a measure that is more sensitive to the changing nature of the economy. For details about the new measure of real GDP, see Appendix B.

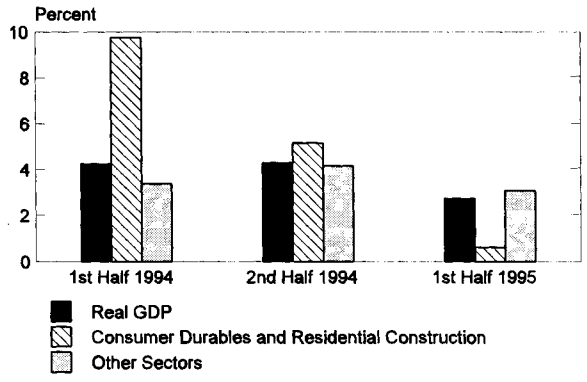
Slowdown in the First Half

The U.S. economy slowed dramatically during the first half of 1995, growing at a 1.6 percent rate since January, down from its brisk pace of 4.1 percent during 1994. During the first two quarters of 1995, the slowing of demand was concentrated in sectors of the economy that are sensitive to changes in interest rates, such as residential construction and consumer durables, especially autos and furniture (see Figure 2). That pattern suggests that the weaker pace of economic activity resulted largely from the Federal Reserve's tightening of monetary policy during 1994 and early 1995. Producers reacted to slower demand by cutting back their investment in inventories--which had been very strong during 1994 and early 1995--to prevent stocks of unfinished goods from mounting.

Some analysts were concerned that the signs of weakening might be signaling the start of a recession. Indicators such as the index of industrial production, housing starts, and vehicle sales all reached peaks and started to decline during the first quarter of 1995. Broader-based measures from the labor market--hours worked, employment, and the unemployment rate--hinted at softer demand for labor during the first half of the year. By midyear, however, many of those indicators showed renewed strength, decreasing the likelihood of a significant unwinding of economic activity.

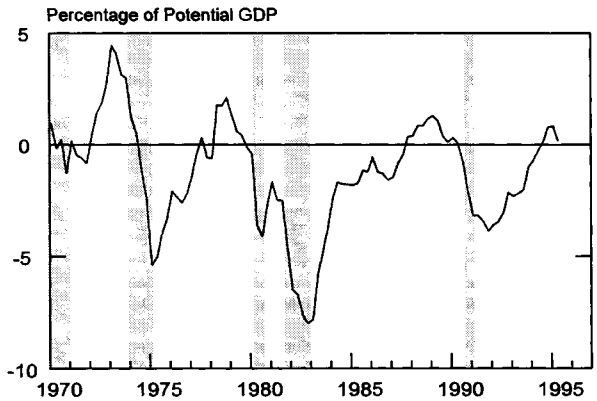
Financial markets responded to the slowing of the economy by driving down interest rates--particularly long-term rates--during the first half of 1995. The rate on 10-year Treasury notes, for example, dropped 160 basis points, retracing nearly four-fifths of its 1994 run-up. The efforts of the Federal Reserve to maintain the federal funds rate at its 6 per-

Figure 2.
Growth Patterns in Selected Sectors
(By half years, at annual rates)



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

Figure 3.
The GDP Gap



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

NOTE: The GDP gap is GDP minus potential GDP expressed as a percentage of potential GDP.

cent target level prevented short-term rates from declining as much. Nevertheless, slower economic growth, combined with the expectation of an easing of monetary policy, forced down yields at shorter maturities, and the three-month Treasury bill rate fell by 30 basis points during the first half of the year.

Financial markets welcomed the news of slower growth because, by most estimates, the economy is straining its productive capacity. Real GDP surpassed potential output, the level of output that is consistent with a stable rate of inflation, during the third quarter of 1994 and remained above that level through early 1995 (see Figure 3). Other measures of inflationary pressure tell the same story as potential output--the capacity utilization index is close to the level normally associated with a pickup in the growth of prices, and the unemployment rate is below CBO's estimate of the nonaccelerating inflation rate of unemployment (or NAIRU). Slower growth cheers the bond market because it reduces the risk of an increase in inflation and the likelihood of a further tightening of monetary policy.

The pattern of declining interest rates since February, when the Federal Reserve last raised the federal funds rate, has narrowed the spread between long- and short-term interest rates and flattened the yield curve. Such a narrowing typically indicates slower growth ahead, whereas inversions of the yield curve (when short-term rates climb above long rates) are usually followed by recessions. However, the events of 1995 differ from most episodes in which the yield spread has narrowed in that long-term rates dropped but short-term rates fell only slightly. Usually, the yield curve flattens when interest rates are rising and tight monetary policy drives short-term rates above long-term rates. The most likely explanation for this year's events is that slower growth eased fears of inflation among participants in the financial markets and lowered the likelihood of further Federal Reserve tightening. Those forces reduced long-term rates and would have lowered short-term rates sharply had the Federal Reserve not drained reserves from the banking system.

The progress made by the Congress toward deficit reduction may also have contributed to the decline in long-term interest rates. Early in the year, financial market participants seemed skeptical that the Republican majorities could hold together to pass legislation to reduce the deficit substantially. As the budget resolution and other legislation incorporating such reductions progressed through the House and Senate, markets may have changed their views and bid down rates.

The CBO Forecast for 1995 and 1996

The economy is likely to weather the current period of weakness and return to a sustainable path of growth next year. The softening of interest-sensitive sectors caused by tight monetary policy could persist through the end of 1995. It need not, however, cause a dramatic weakening of employment or income and therefore would not spread to other sectors of the economy. CBO foresees a period of slow growth in real GDP this year and a gradual return toward its potential rate of growth during 1996.

Significant slowdowns do not necessarily foreshadow recession. For example, a period of slow growth interrupted the expansion of the 1980s relatively late in the business cycle. During 1986, the growth of real GDP was negative in the second quarter, remained sluggish for the remainder of the year,

but then snapped back in 1987. A similar pause occurred in 1967. Those brief pauses probably prolonged the expansions by reducing inflationary pressures, thereby delaying the point at which the Federal Reserve needed to act aggressively to head off inflation. The comparison between the episodes is not perfect--the current slowing can probably be attributed to the Federal Reserve's preemptive strike against inflation during 1994, whereas the slowing in 1986 occurred at a time when the Federal Reserve was easing rates. However, the current slowdown, like those of 1967 and 1986, will probably be mild, relieve pressure on capacity, and help to prevent the economy from overheating.

The Economy Has Enough Fundamental Strength to Avoid Recession

The pockets of weakness that emerged during the first half of 1995 are isolated and are not likely to cause the downward spiral of cuts in production and employment that characterizes recessions. Many fundamental factors support growth: consumer and business balance sheets are healthy; banks do not appear to be overextended; corporate cash flow is strong; inventory stocks do not generally appear to be bloated; the exchange value of the dollar is down; and growth abroad looks solid on average.

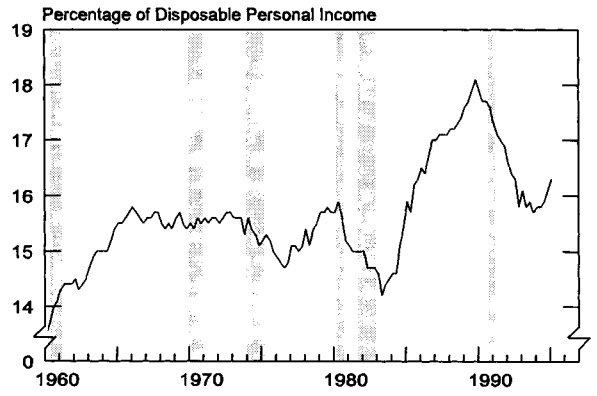
Balanced against those sources of strength is the tightening of monetary policy that occurred during 1994 and early 1995, which clearly began to slow the economy during the first half of 1995 and may yet slow it further. On seven previous occasions since World War II, the federal funds rate rose by at least 180 basis points within four quarters, as it did in 1994 and early 1995. After two of those seven episodes, the economy was in recession within a year, and after another four episodes, the economy was in recession within two years. However, interest rates are still lower now than in past episodes of tightening, perhaps because the Federal Reserve began to tighten earlier in the business cycle than it did many times in the past.

Consumers Will Not Retrench. Consumer spending grew at a 2.0 percent annual rate during the first half of 1995, slipping from its 3.3 percent pace during the previous two years. Thus far, the weakness in consumption has been concentrated in areas that are sensitive to changes in interest rates, including durable goods such as autos and furniture. In CBO's view, the weakness in spending for durable goods will continue into 1996, but will not spread to demand for nondurables--such as food and clothing--or to demand for services.

The outlook for growth in personal income, though not as strong as its robust pace during the latter half of 1994, is favorable enough to support continued growth in consumer spending. CBO expects disposable personal income, adjusted for inflation, to grow at an average rate of 1.7 percent through the end of 1996. Unfettered by a heavy burden of debt repayment, consumers should react to such growth in income by increasing their consumption spending at a similar rate (see Figure 4). The surge in stock and bond prices during the first half of 1995 will also support consumer spending, though only modestly.

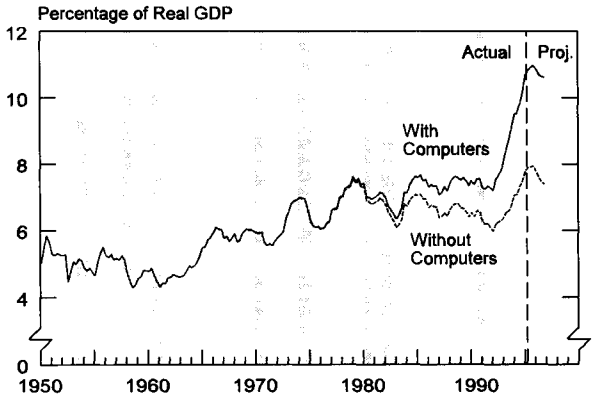
Business Investment Cools. Growth of business investment, which has advanced at a 10 percent rate since the beginning of 1994, is expected to slow dramatically during the remainder of the year and into 1996. Spending for capital equipment, which has been an important engine of growth during the current business cycle, is expected to lead the slow-

Figure 4.
Household Payments on Debt



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

Figure 5.
Investment in Producers' Durable Equipment



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

down (see Figure 5). Although CBO expects that companies will respond to the slower pace of sales by trimming their capital-spending plans, several factors argue against a collapse in business investment: factory operating rates continue to be high, thus putting pressure on companies to expand capacity; corporate cash flows and profits are strong; business balance sheets are not loaded down with debt; and financing costs are falling as interest rates sag and the stock market surges.

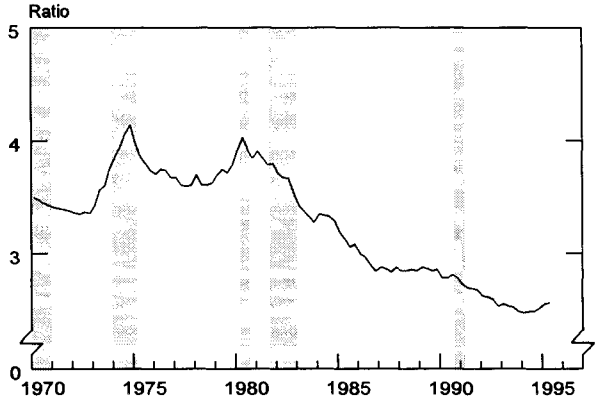
One source of concern is the rapid pace of inventory accumulation during 1994 and the first quarter of 1995. Investment in inventories accounted for a significant share of the growth of real GDP during those quarters--0.6 percentage points of an overall growth rate of 3.8 percent. That pace of accumulation did not concern analysts during 1994, when the growth of demand was brisk. However, inventory stocks mounted when sales slowed during the first half of 1995, especially in the housing and auto sectors, in which the shortfall in demand was concentrated. When production fell off during the second quarter in response to a growing stock of unsold goods, analysts became concerned about the possibility that large inventories could induce recession.

CBO does not forecast such a cycle because the inventory buildup--with the exception of a few sectors--is not especially large compared with the recent level of sales. Indeed, the overall inventory-to-sales ratio showed a very mild increase during the first half of 1995 (see Figure 6). In addition, manufacturers have already begun to align their inventories with sales by slowing production during the second quarter. CBO projects that the investment in inventories will remain slow during the second half of the year and that inventories will be in line with sales by early 1996.

Investment in nonresidential structures is expected to provide a mild boost to the economy through the end of 1996. After three years in the doldrums, that sector perked up in 1994 and posted a 17 percent rate of growth during the first half of 1995. Growth in nonresidential construction was surprisingly broad-based during the first six months of 1995, encompassing industrial buildings (including factories and warehouses), commercial real estate (including retail and wholesale space, hotels and motels, and even office buildings), mining, and construction by utilities. Spending for structures depends less on the ups and downs of the business cycle than other investment and therefore may continue its modest growth even if investment in equipment slows.

Baseline Fiscal Policy Is Not a Factor. CBO's economic assumptions normally reflect the federal fiscal policies--that is, tax policies and spending plans--that have already been passed into law. The current-law forecast embodies a fiscal policy that scarcely re-

Figure 6.
Stock of Inventories Compared with Sales



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

strains economic activity in 1995 and 1996. Actual fiscal policy is likely to be more restrictive than current law, however, since both the Congress and the Administration have indicated a desire to reduce the deficit for 1996 and beyond on the way to budgetary balance (see Chapter 3).

CBO gauges the stance of fiscal policy using the standardized-employment deficit, which removes outlays for deposit insurance and the effects of the business cycle from the budget deficit. Deposit insurance is removed because those outlays are generally considered to be exchanges of existing assets and have little effect on output and employment. The cyclical component of the deficit is removed because it is not the result of policy changes. Fiscal policy is stimulative in a given year if the standardized-employment deficit rises relative to potential GDP in

Table 2.
The Fiscal Policy Outlook (By fiscal year)

	Actual 1994	1995	1996	1997	1998	1999	2000
			In Billions of Dollars				
			With Discretionary Inflation After 1998				
Total Budget Deficit	203	161	189	218	229	261	288
Standardized-employment deficit[a]	194	189	188	211	221	251	277
Cyclical deficit	16	-11[b]	9	12	13	13	14
			Without Discretionary Inflation After 1998				
Total Budget Deficit	203	161	189	218	229	243	250
Standardized-employment deficit[a]	194	189	188	211	221	233	239
Cyclical deficit	16	-11[b]	9	12	13	13	14
Memorandum:							
Deposit Insurance	-8	-16	-8	-4	-5	-3	-2
			As a Percentage of Potential GDP				
			With Discretionary Inflation After 1998				
Total Budget Deficit	3.0	2.3	2.6	2.8	2.8	3.1	3.2
Standardized-employment deficit[a]	2.9	2.7	2.6	2.7	2.7	2.9	3.1
Cyclical deficit	0.2	-0.2[b]	0.1	0.2	0.2	0.2	0.2
			Without Discretionary Inflation After 1998				
Total Budget Deficit	3.0	2.3	2.6	2.8	2.8	2.8	2.8
Standardized-employment deficit[a]	2.9	2.7	2.6	2.7	2.7	2.7	2.7
Cyclical deficit	0.2	-0.2[b]	0.1	0.2	0.2	0.2	0.2

SOURCE: Congressional Budget Office.

NOTE: Caps on discretionary spending are set by law through 1998. Measures of the deficit "with discretionary inflation" assume that discretionary spending grows at the rate of inflation after 1998. Measures of the deficit "without discretionary inflation" assume that discretionary spending remains frozen in dollar terms at the level of the 1998 cap.

a. Excludes cyclical fluctuations and outlays for deposit insurance.

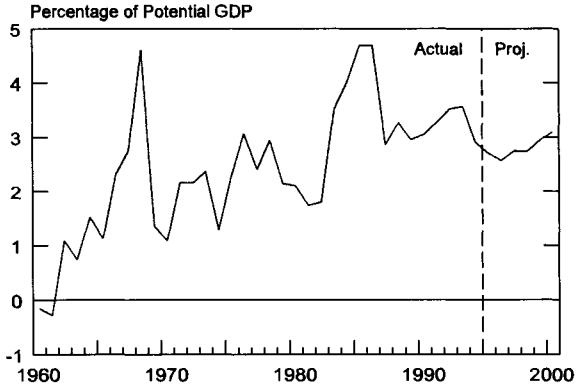
b. Surplus.

that year and restrictive if it falls relative to potential GDP. Otherwise fiscal policy is said to be neutral if the ratio remains constant.

Under current law, the standardized-employment deficit will remain roughly constant as a share of potential GDP between 1995 and 1998 (see Table 2 and Figure 7). Its course thereafter depends on whether discretionary spending grows with inflation or remains constant after the current caps on such spending expire. If discretionary spending was allowed to grow with inflation, the standardized-employment deficit would also grow as a share of potential GDP between 1998 and 2000. After 2000, rising spending for health programs would drive up the deficit even more. If discretionary spending was held constant at its 1998 dollar level, the standardized-employment deficit would be a roughly constant share of potential GDP between 1998 and 2000. From a longer-run point of view, however, baseline fiscal policy would be a source of concern because federal borrowing would continue to crowd out private investment.

Net Exports Show Modest Improvement Through the End of 1996. The U.S. trade balance, which deteriorated as a result of a sharp decline in exports to Mexico during the first half of 1995, should improve in the remainder of 1995 and into 1996. Faster growth abroad combined with slower growth at home is largely responsible for improving the trade balance. In addition, the exchange value of the dollar plunged sharply during the first quarter of 1995, providing a further reason to expect improvement in the trade picture.

Figure 7.
Standardized-Employment Deficit
(By fiscal year)

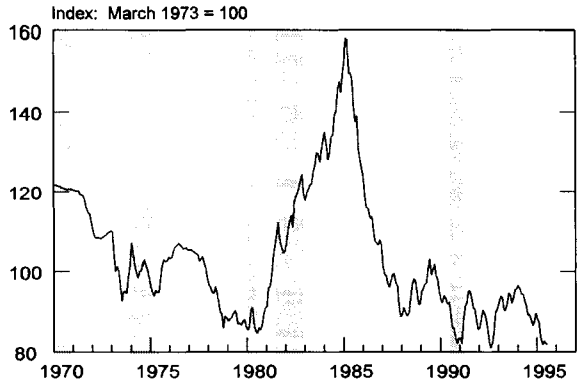


SOURCES: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Growth in world output should outpace growth in the United States during the rest of 1995 and 1996, averaging 3 percent in both years. Economic recovery is firmly established in Canada, Germany, and the United Kingdom--three of the top five trading partners of the United States--though slower growth in the United States seems to have dampened prospects in Canada. Growth in the newly industrialized countries of Asia, though moderating from its remarkable 7.6 percent rate in 1994, is projected to remain much faster than the growth of the U.S. economy during 1995 and 1996.

The notable exceptions to that rosy picture are Japan and Mexico--the second and third largest trading partners of the United States--which are currently experiencing low or negative growth in output. The economic recovery in Japan, which has been limping along for the last two years, was further battered by the Kobe earthquake in January and an appreciation of the yen during the first half of 1995. Economic activity in Japan during this business cycle has been hampered from the start by sluggish lending by banks, which are struggling to crawl out from under a mountain of bad loans caused by the collapse of prices in real estate and financial assets. One of the actions undertaken by banks (and insurers) is the sale of marketable assets, which forces the prices of equities and property down further. Although the economy seems to have recovered quickly from the effects of the earthquake (rebuilding work could be stimulating growth at this point), the effects of the yen's appreciation make it less likely that foreign demand will boost the economy in the near term. In addition to decreasing the competitiveness of Japan's exporters in foreign markets, the yen's appreciation has spurred cost-cutting measures by firms that have slowed--and will continue to slow--the growth in employment, wages, and consequently consumer demand. Some analysts are worried that Japan will slip back into recession, but a consensus forecast envi-

Figure 8.
The Dollar Exchange Rate



SOURCES: Congressional Budget Office; Federal Reserve Board.

NOTE: Trade-weighted index relative to the currencies of 10 countries: Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, and the United Kingdom.

sions Japan's output growing at about 0.5 percent in 1995 and 1.2 percent in 1996.[2]

Mexico's currency crisis subsided in March after a package of international aid and loan guarantees, combined with the Mexican government's austerity program, restored confidence in the peso. By mid-July, Mexico's first debt offering since the crisis was greeted by strong demand in the private capital market; $1 billion of new two-year notes was sold, twice the targeted amount. However, the crisis itself, which cut off the flow of international investment, and the actions taken by President Zedillo to address the crisis--holding down wage growth, reducing government spending, and selling government enterprises--will depress growth in the near term. The Mexican economy is expected to contract by nearly 3.5 percent in 1995 but is expected to bounce back in 1996, when the impact of the austerity program has passed its peak.

Bolstering the effect of relative growth rates on the trade picture is the depreciation of the dollar, which declined 8 percent during the first half of 1995 when measured against a 10-country, trade-weighted basket of currencies (see Figure 8). The weaker dollar will improve the U.S. real trade balance by making foreign goods more expensive for U.S. residents and domestic goods cheaper abroad. Analysts have generally attributed the fall in the exchange value of the dollar to the expectation by currency traders of slower growth (and lower interest rates) in the United States. Lower interest rates make investments in dollar-denominated assets less attractive to foreigners.

Residential Construction Will Stabilize. Construction of residential housing was decidedly weak during early 1995, after a surge in the last quarter of 1994. Although most analysts expected that sector to soften during 1995, the degree of weakness was a surprise. The decline in long-term interest rates that occurred during the first half of the year will help this sector, but only with a lag. CBO expects that residential construction will decline further during the remainder of 1995 and early 1996, before turning around midway through next year.

The level of interest rates is the most important short-term influence on housing construction, and the run-up in rates during 1994 certainly contributed to the falloff in housing construction earlier this year. The average interest rate on 30-year fixed-rate mortgages climbed 2 percentage points during 1994, peaking at over 9 percent in December. The increase in fixed rates precipitated a shift toward adjustable-rate mortgages, but rates on those mortgages climbed too, rising from 5.6 percent in early 1994 to 7.0 percent in mid-1995. Increases in mortgage rates make a home more expensive to finance, and indeed measures of housing affordability fell as rates increased (see Figure 9). However, the 120 basis-point decline in the interest rate on fixed-rate mortgages during 1995 had the opposite effect, arresting the decline in the index of housing affordability. Although it will operate with a lag, the decline in rates will serve to stimulate housing construction--or at least temper its fall.

The longer-term outlook is for modest growth at best in the housing sector. The most important influence on residential construction over the longer term is the number of new households formed, particularly those in which the head of the household is between the ages of 25 and 34. The dearth of births during the "baby-bust" generation of the late 1960s and 1970s is

2. Consensus Economics, Inc., *Consensus Forecasts* (July 10, 1995).

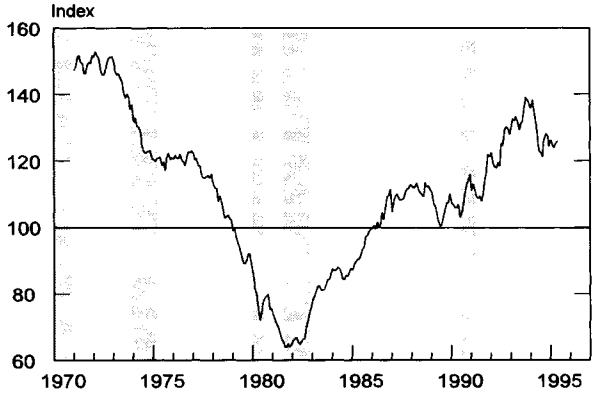
now showing up as a slowdown in the formation of households by that age group--a trend that is expected to continue through the end of the decade. Spending on renovations has supported spending for residential construction during recent years, however, and that spending could accelerate if baby boomers decide to renovate their houses rather than try to sell them to a smaller pool of first-time buyers.

Pressure on Wages and Prices Eases During 1995 and 1996

Despite weakness this year, the economy is operating at high levels of resource use, creating upward pressure on wages and prices. CBO expects that the underlying rate of inflation--measured using the consumer price index for all urban consumers (CPI-U) excluding food, energy, and used cars--will average 3.3 percent between the fourth quarters of 1994 and 1995, slightly above the rate in 1994, and will inch up to 3.5 percent in 1996.

Without any shocks--for example, to oil prices--the primary force that influences the rate of inflation is the growth of labor costs, the largest component of most companies' total expenses. The growth rate of employee compensation, as measured by the employment cost index, is no longer falling and is expected to step up slightly during 1996. That pattern reflects the normal lag between the time that excess demand appears in labor markets--late in 1994--and the time that costs begin to accelerate. The rate of capacity utilization has fallen over the last six months, but it is still near the level at which the rate of inflation for manufactured goods would climb. However, the expected uptick in prices of manufactured goods has not yet been observed. The tumble in the exchange value of the dollar will also tend to pump up inflation through import prices, but the effect on the CPI is likely to be small.

Figure 9.
Housing Affordability Index



SOURCES: Congressional Budget Office; National Association of Realtors.

NOTE: The index equals 100 when median family income is just sufficient to qualify the family to purchase a median-priced home.

Some analysts have argued that the Federal Reserve's focus on fighting inflation has been overdone because the underlying rate of inflation did not increase during the first half of 1995. Those analysts suggest that conventional measures of capacity are no longer relevant in today's economic environment of relentless corporate cost-cutting, heavy investment in computers, and increasing global competition. It is too soon to tell whether that argument is valid because the forces that spur inflation operate with a long lag--anywhere from six months to two years. Since the unemployment rate only breached the level of the NAIRU--CBO's preferred measure of capacity in the labor market--during the fourth quarter of 1994, it is not surprising that inflation in consumer prices has yet to tick up. However, some evidence of price rises exists, and clearly the growth of wages and prices is no longer slipping as it had been since 1990.

Monetary Policy Is Expected to Ease Further

The Federal Reserve progressively tightened monetary policy during 1994 and early 1995 but is now cautiously loosening the degree of restraint. Citing the easing of inflationary pressure, the Federal Reserve cut the target federal funds rate by 25 basis points, from 6 percent to 5¾ percent, in early July. Despite that cut, monetary policy is still relatively tight, and CBO expects that the Federal Reserve will ease policy even further during the second half of 1995 to achieve its goal of sustainable growth with low inflation.

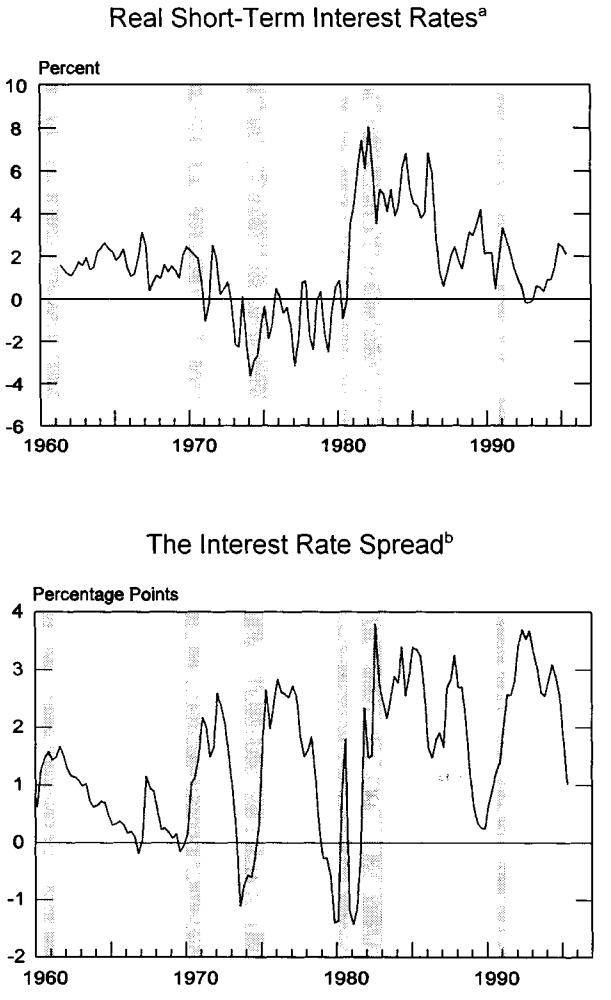
Will the Federal Reserve Achieve a Soft Landing? The strength of economic growth during 1994 led to a succession of increases in interest rates--the last increase occurred in February 1995. Those hikes in rates were part of the Federal Reserve's continuing effort to head off any increase in inflation. Nonetheless, the weakening of economic growth that occurred during the first half of 1995 caught many economic forecasters off guard--most had expected the slower growth to occur later in the year. The minutes of the May 23 meeting of the Federal Open Market Committee suggest that its members were surprised by the weakening of the economy during the first half of the year, but they clearly viewed the slowdown as a temporary falter rather than the harbinger of a recession. In early July, the committee decided that the degree of inflationary pressure had subsided enough that it could trim the federal funds rate slightly, which it did by 25 basis points.

Economic conditions during the first half of 1995 could help the Federal Reserve move toward its goals of low inflation and sustainable economic growth for two reasons. First, slowing economic activity relieved some of the tightness in labor and product markets, meaning that inflationary pressures are not as strong as feared. Second, the decline in long-term interest rates experienced during the first half of 1995 means that the weakness in interest-sensitive sectors will be self-correcting to some degree (though the effect may not be realized until 1996).

Monetary policy, though restrictive, is not as restrictive as it has been before past recessions. For example, real short-term interest rates peaked at 2.5 percent during early 1995, about 1.5 percentage points above their level at the beginning of 1994, but well below the levels attained before the recession of 1990 (see Figure 10). Another indicator, the slope of the yield curve, tells the same story: the curve has flattened, which usually foreshadows a slowing of growth, but has not suffered the inversion that often precedes recessions.

Short-Term Rates Decline Further. CBO expects that the Federal Reserve will allow short-term interest rates to drift gradually down through the end of 1996. The rate on three-month Treasury bills, for example, is expected to drop from 5.5 percent in mid-1995 to 5.1 percent by the end of 1995. The federal funds rate is expected to decline in a similar manner: from 5¾ percent to 5½ percent by the end of 1996. Those paths for short-term interest rates hinge on CBO's forecast for growth of real GDP during the

Figure 10.
Indicators of Monetary Policy



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

a. The real short-term interest rate is calculated by subtracting from the three-month Treasury bill rate the growth (on an annual basis) of the consumer price index for all urban consumers (CPI-U) over the subsequent three-month period. For the second quarter of 1995, the real interest rate is based on CBO's forecast of the growth of the CPI-U for the third quarter of 1995.

b. The interest rate spread is the yield on 10-year Treasury notes minus the three-month Treasury bill rate.

same period. If economic growth was to be much stronger than CBO envisions, rates would not decline as much, if at all. If growth was to come in much weaker than anticipated, rates could fall more quickly.

Long-Term Rates Rebound Slightly. CBO's baseline forecast assumes that long-term interest rates will rise slightly over the forecast period. The 10-year Treasury note rate is forecast to be about 50 basis points higher at the end of 1996 than its level in July of 6.1 percent. In CBO's view, slower economic growth during the first half of 1995 drove long-term rates below the level that is consistent with current-law fiscal policy. Therefore, long-term rates rise gently in this forecast in response to faster growth. However, implementation of the budget resolution--which markets may already expect--would change that outlook, producing lower interest rates (see Chapter 3 for a discussion of the effects of the budget resolution on interest rates and economic growth).

Alternative Outlooks

CBO's forecast reflects a likely path for the economy. As usual, however, the barometers of future economic activity are difficult to read. The stance of monetary policy shifted toward restraint during 1994, and the timing of the effects of such a shift in policy are hard to gauge. The effect on output appears to have come earlier than it has in the past; the magnitude of the effect might possibly have been misestimated. The size of the effect depends on how consumers and businesses react to the pockets of weakness in the economy; their reaction could be stronger or weaker than in the past. The outlook will also depend on the response of the economy to any changes to fiscal policy enacted by the Congress. Any of those factors could cause economic growth to be significantly weaker or stronger than CBO projects (see Appendix A for an analysis of how accurate CBO's forecasts have been since 1976).

A Deeper Downturn

The weakness during the first half of 1995 took analysts by surprise--most expected the economy to slow later in the year, based on the average lag between tightening monetary policy and economic growth. Moreover, the weakness in demand may be more extensive than current statistics indicate. If so, producers may respond to falling orders by further slowing the pace of production to pare their stocks of inventories, or they could decide to delay the purchase of capital goods even more than CBO anticipates. In that way, the falloff in demand in the interest-sensitive sectors of the economy could lead to layoffs and cuts in production in other sectors later in the year. Similarly, the scattered cutbacks in production witnessed thus far could, by shaking consumer or business confidence, cause consumers to retrench or businesses to slash capital-spending plans, resulting in the same downward spiral of cuts in production, incomes, and spending.

If the full effects of the tightening of monetary policy have yet to be felt, then the weakness in the economy could be more pronounced than CBO expects. CBO estimates that the delay between a change in monetary policy and the effects on the economy usually ranges from nine to 18 months. Since monetary policy shifted from one of ease to tightness during the middle of 1994, the effects of the change would be expected to occur during the second half of 1995. However, the economy began to weaken during the first quarter and slowed much more than CBO had expected. Based on the normal delay between the change in policy and the effects on the economy, further effects of the tightening that occurred during the latter half of 1994 and early 1995 may yet be felt.

Fiscal policy could also affect the near-term outlook. The Congress appears ready to alter the course of fiscal policy for the next decade, based on the budget resolution passed in June. If that effort is sustained, the standardized-employment budget deficit could fall by almost 0.5 percent of GDP on average per year through 2002. Monetary policy could offset such restraint, but the restraint would add to the risk of slower growth. Failure to deliver significant reduction might also create a risk. If fiscal policy actions failed to persuade financial markets that significant deficit reduction was imminent, then long-term interest rates could rise. Any increase in rates could exacerbate the existing weakness in the economy.

Global events are another source of uncertainty about the outlook. The most immediate concern is that growth abroad will be more tepid than anticipated, which could weaken U.S. exports in the near term. The outlook for Japan is extremely uncertain because it is still wrestling with the effects of deflating asset prices. Although the consensus forecast for Japan's growth is still positive, many analysts have highlighted the very real possibility that further loans might go bad and that Japan could relapse into recession. The high yen (caused in part by Japanese banks and insurers selling off foreign assets to maintain adequate capital reserves) heightens the problem by making Japanese goods more expensive in the United States and other foreign countries.

A Cycle of Boom and Bust

Another interpretation of the recent data is that the weakness experienced during the first half of 1995 is overstated and that the economy will grow vigorously during the remainder of the year. The weakness could be overstated for various reasons. Seasonal effects in the data may not have been removed correctly, or the slowing of demand for housing and autos may be temporary. A return to growth faster than the economy's long-run potential could occur if demand for autos and housing picks up slightly and companies replenish their inventory stocks. Those factors, combined with a steady growth in demand for consumer nondurables and services as well as an improving trade picture, could easily support growth of real GDP above 4 percent in the near term.

Strong growth for any of those reasons risks precipitating a harsh response from the Federal Reserve and a hard landing later. The Federal Reserve has stated repeatedly that it will act quickly to prevent inflationary pressures from boiling over. Even after the slowing during the first half of the year, the economy is at a very high level of resource use and risks overheating. In the face of growth above potential--about 2½ percent--monetary policy is likely to tighten further, perhaps aggressively. If that scenario occurred, then the probability of a recession during 1996 or 1997 would increase dramatically.

CBO's forecast assumes that the economy avoids both of those extremes and that growth continues during the second half of the year and through 1996. That outlook assumes the Federal Reserve has succeeded in guiding the economy between the risk of recession and that of accelerating inflation, thereby achieving its stated goal of monetary policy: sustainable economic growth and moderate inflation.

The *Blue Chip*, Administration, and Federal Reserve Forecasts

The *Blue Chip* consensus, derived from a monthly survey of about 50 private-sector forecasters, expects a milder slowdown and a more rapid pickup in economic growth during the next year and a half than does CBO. The consensus forecast for growth in real GDP is 2 percent in 1995 and 2.5 percent in 1996, compared with 1.3 percent and 2.3 percent for CBO (see Table 3). Despite the different view of growth during the next two years, little difference exists between the two forecasts on inflation or the unemployment rate. Interest rates are slightly higher in the *Blue Chip* consensus. Short-term rates decline from 5.6 percent in 1995 to 5.4 percent in 1996, and long-term rates moderate from 6.7 percent in 1995 to 6.5 percent in 1996; CBO expects short-term rates to fall from 5.4 percent to 5.1 percent and long-term rates to slip from 6.5 percent to 6.4 percent between 1995 and 1996.

CBO's forecast is also similar to the forecasts of the Administration and the Federal Reserve. Both of those alternatives foresee slightly faster real growth during the next two years than CBO does, but their assumptions about inflation and the unemployment rate are quite close to CBO's.

Projection for the Years Beyond 1996

CBO projects that growth of real GDP will average 2.4 percent between 1997 and 2005 and that the rate of unemployment will hold steady at about 6 percent during the same period (see Tables 4 and 5 on pages 16 and 17). The growth of the CPI-U is projected to decline slightly during the medium term, down from

Table 3.
Comparison of Forecasts for 1995 and 1996

	Actual 1994	Forecast 1995	Forecast 1996
	Fourth Quarter to Fourth Quarter (Percentage change)		
Nominal GDP			
CBO	6.5	3.8	5.1
Blue Chip	6.5	4.3	5.4
Administration	6.5	4.7	5.5
Federal Reserve[a]	6.5	4¼ to 4¾	4¾ to 5⅜
Real GDP[b]			
CBO	4.1	1.3	2.3
Blue Chip	4.1	2.0	2.5
Administration	4.1	1.9	2.5
Federal Reserve[a]	4.1	1½ to 2	2¼ to 2¾
Implicit GDP Deflator			
CBO	2.3	2.5	2.7
Blue Chip	2.3	2.2	2.9
Administration	2.3	2.8	2.9
Federal Reserve[a]	2.3	*	*
Consumer Price Index[c]			
CBO	2.6	3.3	3.4
Blue Chip	2.6	3.3	3.4
Administration	2.6	3.2	3.2
Federal Reserve[a]	2.6	3⅛ to 3⅜	2⅞ to 3¼
	Average Level in the Fourth Quarter (Percent)		
Civilian Unemployment Rate			
CBO	5.6	5.9	6.0
Blue Chip	5.6	5.7	5.8
Administration	5.6	6.0	5.8
Federal Reserve[a]	5.6	5¾ to 6⅛	5¾ to 6⅛
	Calendar Year Average (Percent)		
Three-Month Treasury Bill Rate			
CBO	4.3	5.4	5.1
Blue Chip	4.3	5.6	5.4
Administration	4.3	5.7	5.5
Federal Reserve[a]	4.3	*	*
Ten-Year Treasury Note Rate			
CBO	7.1	6.5	6.4
Blue Chip[d]	7.1	6.7	6.5
Administration	7.1	6.6	6.8
Federal Reserve[a]	7.1	*	*

SOURCES: Congressional Budget Office; Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators* (August 10, 1995); Office of Management and Budget; Federal Reserve Board.

NOTES: * = not applicable. The *Blue Chip* forecasts through 1996 are based on a survey of 50 private forecasters.

a. The Federal Reserve figures are the ranges--known as the central tendency--that include the majority of the forecasts of Federal Open Market Committee members and other Federal Reserve Bank presidents.

b. Based on constant 1987 dollars.

c. The consumer price index for all urban consumers (CPI-U).

d. *Blue Chip* does not forecast a 10-year note rate. The values shown here for the 10-year note rate are based on the *Blue Chip* forecasts of the Aaa bond rate, adjusted by CBO to reflect the estimated spread between Aaa bonds and 10-year Treasury notes.

3.4 percent in 1996 to 3.3 percent in 1998, and 3.2 percent thereafter. Interest rates will remain steady in the years after 1996: the three-month Treasury bill rate will average 5.1 percent through 2005, and the 10-year Treasury note will average 6.7 percent during the same period.

CBO's medium-term projections do not reflect any attempt to estimate cyclical movements of the economy during the 1997-2005 period or the effects of fiscal policy on the year-to-year changes in economic activity. Instead, the projections are designed to approximate the level of economic activity on average, including the possibility of above- or below-average rates of growth, inflation, and interest. CBO uses historical relationships to identify trends in fundamental factors underlying the economy, including growth of the labor force, the rate of national saving,

Table 4.
The Economic Forecast and Projections for Calendar Years 1995 Through 2005

	Actual	Forecast		Projected								
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Nominal GDP (Billions of dollars)	6,738	7,058	7,385	7,764	8,165	8,587	9,032	9,497	9,986	10,501	11,042	11,610
Nominal GDP (Percentage change)	6.2	4.7	4.6	5.1	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Real GDP (Percentage change)[a]	4.1	2.6	1.9	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Implicit GDP Deflator (Percentage change)	2.1	2.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
CPI-U (Percentage change)[b]	2.6	3.1	3.4	3.4	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Unemployment Rate (Percent)	6.1	5.7	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Three-Month Treasury Bill Rate (Percent)	4.2	5.4	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Ten-Year Treasury Note Rate (Percent)	7.1	6.5	6.4	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Tax Bases (Percentage of GDP)												
Corporate profits	8.1	8.0	7.9	7.8	7.6	7.5	7.3	7.1	7.0	6.9	6.8	6.7
Other taxable income	20.2	20.7	20.5	20.4	20.4	20.4	20.4	20.5	20.5	20.5	20.5	20.5
Wage and salary disbursements	48.7	48.8	48.7	48.6	48.6	48.6	48.6	48.5	48.5	48.5	48.5	48.5
Total	76.9	77.5	77.1	76.8	76.6	76.4	76.3	76.1	76.0	75.9	75.8	75.7

SOURCE: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board.

a. Based on constant 1987 dollars.

b. CPI-U is the consumer price index for all urban consumers.

and growth of productivity. The projections of variables such as real GDP, inflation, and real interest rates are then based on their historical norms. The projections do not include the effects of policies contained in the budget resolution and are more nearly consistent with the policies embodied in CBO's baseline projections of spending and revenues.

The Projection for Growth

The forecast for economic growth during the near term leaves real GDP just below the level of potential real GDP (see Figure 11). In fact, the gap in output at the end of 1996 would be equal to the average gap that existed during the period since 1960, and that gap is held constant throughout the projection

Table 5.
The Economic Forecast and Projections for Fiscal Years 1995 Through 2005

	Actual	Forecast		Projected								
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Nominal GDP (Billions of dollars)	6,634	6,992	7,295	7,667	8,062	8,479	8,918	9,379	9,862	10,370	10,904	11,465
Nominal GDP (Percentage change)	5.9	5.4	4.3	5.1	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
Real GDP (Percentage change)[a]	3.8	3.3	1.6	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Implicit GDP Deflator (Percentage change)	2.0	2.1	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
CPI-U (Percentage change)[b]	2.6	2.9	3.3	3.4	3.3	3.2	3.2	3.2	3.2	3.2	3.2	3.2
Unemployment Rate (Percent)	6.1	5.6	5.9	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Three-Month Treasury Bill Rate (Percent)	3.7	5.5	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
Ten-Year Treasury Note Rate (Percent)	6.5	6.9	6.3	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Tax Bases (Percentage of GDP)												
Corporate profits	8.1	8.1	7.9	7.9	7.7	7.5	7.3	7.2	7.0	6.9	6.8	6.7
Other taxable income	20.1	20.7	20.6	20.4	20.4	20.4	20.4	20.5	20.5	20.5	20.5	20.5
Wage and salary disbursements	48.6	48.8	48.7	48.6	48.6	48.6	48.6	48.6	48.5	48.5	48.5	48.5
Total	76.8	77.5	77.2	76.9	76.6	76.5	76.3	76.2	76.0	75.9	75.8	75.7

SOURCE: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board.

a. Based on constant 1987 dollars.

b. CPI-U is the consumer price index for all urban consumers.

period. Thus, CBO projects that real GDP will grow at the same rate as potential real GDP during the 1997-2005 period--that is, about 2.4 percent.

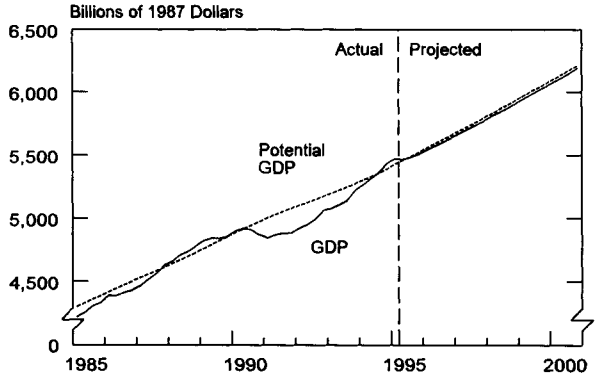
The growth of real GDP during the medium term is little changed from last winter's report because the outlook for the factors that underlie the growth of potential output are little changed. The labor force is expected to grow by 1.1 percent annually during the 1997-2005 period, about the same rate that was assumed last winter. That rate reflects an increase in the rate of labor force participation during the medium term, though at a slower rate than during the 1970s and 1980s. The rate of national saving, which averages about 13 percent of GDP during the medium term, supports a rate of capital accumulation of nearly 3 percent on average between 1997 and 2005, about the same as CBO assumed last winter. Growth of total factor productivity averages 0.7 percent a year, which is almost identical to the rate assumed last winter.

The Projection for Inflation

Since the level of real GDP is about equal to the level of potential GDP at the end of 1996, there is no further upward pressure on the rate of inflation in wages and prices. The same story is told by the unemployment gap, which is the difference in percentage points between the unemployment rate and the NAIRU. Therefore, CBO projects that the rate of inflation will remain steady during the 1997-2005 period. When measured using the implicit GDP deflator, inflation averages 2.7 percent a year and the CPI-U grows at an average rate of 3.2 percent during the period.

CBO has reduced its projection for the CPI-U by 0.2 percentage points beginning in 1998 to account for the planned rebenchmarking of the CPI-U.[3] The Bureau of Labor Statistics has announced that it will reweight the CPI-U to reflect the cost of a typical market basket of goods purchased by urban consumers during the 1993-1995 period, switching from weights computed using expenditures from the 1982-1984 period. Updating the weights in that fashion will place a heavier weight on goods with lower rates of price increase. Consequently, the new measure will grow more slowly than the old. CBO estimates that the rebenchmarking will slow the measured rate of inflation by 0.2 percentage points.

Figure 11.
GDP and Potential GDP



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

The Projection for Interest Rates

To project interest rates, CBO combines its projection for inflation with a projection of real interest rates. Real interest rates are projected to reach their long-term historical averages gradually, with an adjustment for any special factors present (or absent) that would make the 1990s different from the postwar period as a whole. Increased federal deficits and greater demand for capital among newly industrialized and newly liberalized economies are two examples of factors that tend to boost real interest rates relative to historical averages. CBO assumes that the rate on three-month Treasury bills will remain steady at 5.1 percent during the 1997-2005 period and that the rate on 10-year Treasury notes will hold at 6.7 percent. Neither assumption has changed since CBO's winter report.

3. This rebenchmarking was not included in CBO's projections from last winter but was incorporated into the economic assumptions used for the budget resolution.

Chapter Two

The Baseline Budget Outlook

The Congressional Budget Office estimates that the deficit in the fiscal year ending September 30, 1995, will total $161 billion--the smallest posted deficit since 1989 and almost $100 billion lower than the deficit recorded just two years ago. Under current taxing and spending policies, though, the deficit is expected to resume an upward trend in 1996. CBO projects a deficit of $189 billion next year, rising to $462 billion in 2005 if there is no change in the laws and policies underlying the budget. As a percentage of gross domestic product, the deficit rises from 2.3 percent in 1995 to 4.0 percent in 2005. Concerned over the prospect of persistent large deficits, the Congress is attempting to bring the budget into balance by 2002. Chapter 3 describes the deficit path proposed in the budget resolution.

In terms of baseline projections, little has changed since CBO's last report to the Congress. The near-term outlook is somewhat brighter: compared with the estimates CBO published in its April report, *An Analysis of the President's Budgetary Proposals for Fiscal Year 1996,* the deficit is likely to be about $13 billion lower in 1995 and $21 billion lower in 1996. Those changes are almost entirely attributable to new economic information and other developments; legislation adopted so far this year has scarcely affected the budget totals. The near-term revisions, however, do not alter CBO's view of long-run budget trends. By 2005, projected deficits are basically the same as those CBO published in April.

The Deficit Outlook

Much of the concern about the budget stems from the sheer size of the federal deficit; Table 6 displays several measures of that gap. The most commonly used measure of the deficit is simply the difference between total revenues and total spending. Since the statutory caps on discretionary spending are currently set to expire in 1998, CBO produces two projections of that difference--one assuming that discretionary spending grows at the rate of inflation after 1998 and the other assuming that it is frozen at the 1998 dollar level.

Participants in the budget debate often cite other measures of the deficit, such as the standardized-employment, or structural, deficit. That figure shows what is left after removing the cyclical deficit (the reduction in revenues and the extra spending on benefits that result when the economy operates below its full potential). With output around its full employment level, the distinction between the structural deficit and the conventionally measured deficit is far less relevant now than during a period of recession, such as was experienced in the early 1990s.

Spending and receipts for Social Security and the Postal Service, which are designated as off-budget by statute, are often displayed separately. The surpluses or deficits of those programs are depicted in Table 6. Despite their special status, those off-budget transac-

Table 6.
CBO Deficit Projections (By fiscal year)

	Actual 1994	1995	1996	1997	1998	1999	2000
	In Billions of Dollars						
Baseline Total Deficit							
With discretionary inflation after 1998	203	161	189	218	229	261	288
Without discretionary inflation after 1998	203	161	189	218	229	243	250
Standardized-Employment Deficit[a]							
With discretionary inflation after 1998	194	189	188	211	221	251	277
Without discretionary inflation after 1998	194	189	188	211	221	233	239
On-Budget Deficit (Excluding Social Security and Postal Service)							
With discretionary inflation after 1998	259	224	253	286	301	338	373
Without discretionary inflation after 1998	259	224	253	286	301	319	335
Memorandum:							
Deposit Insurance	-8	-16	-8	-4	-5	-3	-2
Cyclical Deficit	16	-11	9	12	13	13	14
Off-Budget Surplus							
Social Security	57	62	63	67	70	76	84
Postal Service	-1	1	b	1	1	b	1
Total, Off-Budget Surplus	56	63	63	68	71	77	85
	As a Percentage of GDP						
Baseline Total Deficit							
With discretionary inflation after 1998	3.1	2.3	2.6	2.8	2.8	3.1	3.2
Without discretionary inflation after 1998	3.1	2.3	2.6	2.8	2.8	2.9	2.8
Standardized-Employment Deficit[a,c]							
With discretionary inflation after 1998	2.9	2.7	2.6	2.7	2.7	2.9	3.1
Without discretionary inflation after 1998	2.9	2.7	2.6	2.7	2.7	2.7	2.7

SOURCE: Congressional Budget Office.

NOTE: Caps on discretionary spending are set by law through 1998. Measures of the deficit "with discretionary inflation" assume that discretionary spending grows at the rate of inflation after 1998. Measures of the deficit "without discretionary inflation" assume that discretionary spending remains frozen in dollar terms at the level of the 1998 caps.

a. Excludes the cyclical deficit and deposit insurance.

b. Less than $500 million.

c. Expressed as a percentage of potential gross domestic product.

tions loom so large in the revenue and spending totals that any measure of the budget that omits them yields a distorted picture of the government's drain on credit markets and its role in the economy.

Changes in the Budget Outlook Since April

Although the outlook for this year's and next year's deficit has noticeably improved, the longer-term picture remains close to what CBO had projected at the beginning of the year. Deficits are down in each year, chiefly because of lower projected interest rates. New information on revenues and mandatory programs also contributes to lower deficit estimates; however, revenue losses due to economic changes partially offset those improvements in the deficit outlook (see Table 7).

Only three bills enacted so far this year have contributed significantly to changes in the baseline. Supplemental emergency spending--primarily for defense readiness and disaster assistance--increases

Table 7.
Changes in CBO Baseline Deficit Projections Since April 1995 (By fiscal year, in billions of dollars)

	1995	1996	1997	1998	1999	2000
April Baseline Deficit with Discretionary Inflation After 1998[a]	175	210	230	232	266	299
Legislative Changes	b	-2	-1	b	b	b
Economic Changes						
Revenues	2	9	12	12	11	9
Outlays						
Net interest	-2	-17	-15	-8	-5	-5
Other outlays	b	1	1	1	b	-3
Subtotal	-2	-16	-13	-7	-6	-7
Deficit	b	-6	-1	6	6	2
Technical Changes						
Revenues	-4	-5	-5	-3	-5	-6
Outlays						
Discretionary	-2	b	b	0	0	0
Mandatory	-7	-7	-3	-2	-3	-2
Deposit insurance	-1	0	0	0	0	0
Net interest	b	-1	-2	-2	-3	-4
Subtotal	-9	-8	-5	-5	-5	-6
Deficit	-13	-13	-10	-8	-11	-13
Total Changes	-13	-21	-12	-3	-5	-11
August Baseline Deficit with Discretionary Inflation After 1998[a]	161	189	218	229	261	288

SOURCE: Congressional Budget Office.

NOTE: Revenue increases are shown as negative because they reduce the deficit.

a. Projections assume that discretionary spending is equal to the spending limits that are in effect through 1998 and grows at the rate of inflation after that.

b. Less than $500 million.

the deficit by $2 billion to $3 billion a year from 1996 onward. That supplemental spending, however, is authorized in two rescission bills that also provide for cuts in outlays by similar amounts each year. In addition, to fund the extension of the deduction for health insurance costs incurred by self-employed individuals, the Congress imposed an interest and dividend test on recipients of the earned income tax credit (EITC) and repealed the preferential tax treatment of income from sales of broadcast facilities to buyers certified as minority businesses. In total, legislative action so far this year has reduced the deficit by $2 billion in 1996 and $1 billion in 1997, with negligible effects in other years.

A more important source of revision is changes in the economic outlook. As noted in Chapter 1, projected interest rates over the next year are expected to

Table 8.
CBO Baseline Budget Projections with Discretionary Inflation After 1998 (By fiscal year)

	Actual 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
					In Billions of Dollars							
Revenues												
Individual income	543	595	625	652	687	725	767	812	859	908	960	1,016
Corporate income	140	156	159	164	171	177	183	189	196	204	212	221
Social insurance	461	484	507	527	551	579	609	638	670	703	737	775
Other	113	122	122	124	128	131	135	140	146	151	157	163
Total	1,258	1,357	1,413	1,468	1,537	1,612	1,694	1,779	1,870	1,966	2,066	2,175
On-budget	923	1,007	1,046	1,085	1,136	1,190	1,249	1,313	1,381	1,452	1,528	1,608
Off-budget	335	350	367	383	401	422	445	466	489	513	538	566
Outlays												
Discretionary[a]												
Defense	282	269	270	278	285	295	304	314	324	334	345	356
International	21	21	22	22	22	23	24	24	25	26	27	28
Domestic	243	256	264	274	285	296	307	317	327	338	349	360
Unspecified reductions	0	0	-6	-21	-36	-39	-42	-44	-45	-47	-48	-50
Subtotal	546	546	550	553	556	574	593	612	631	651	672	694
Mandatory	791	835	893	958	1,023	1,095	1,172	1,246	1,333	1,425	1,523	1,635
Deposit insurance	-8	-16	-8	-4	-5	-3	-2	-2	-2	-2	-1	-1
Net interest	203	233	242	255	271	288	305	321	342	364	388	415
Offsetting receipts	-71	-79	-75	-75	-79	-81	-85	-89	- 93	-97	-102	-106
Total	1,461	1,518	1,602	1,686	1,766	1,873	1,982	2,087	2,211	2,341	2,480	2,637
On-budget	1,182	1,231	1,299	1,371	1,437	1,527	1,622	1,710	1,817	1,930	2,052	2,190
Off-budget	279	287	304	315	329	346	360	377	393	410	428	447
Deficit	203	161	189	218	229	261	288	308	340	375	414	462
On-budget deficit	259	224	253	286	301	338	373	397	436	478	523	582
Off-budget surplus	56	63	63	68	71	77	85	89	96	103	110	119
Debt Held by the Public	3,432	3,605	3,809	4,044	4,289	4,568	4,873	5,199	5,557	5,949	6,380	6,860
Memorandum:												
Gross Domestic Product	6,634	6,992	7,295	7,667	8,062	8,479	8,918	9,379	9,862	10,370	10,904	11,465

(Continued)

be about a full percentage point lower than CBO had previously forecast. With federal debt held by the public standing near $3.6 trillion, those lower rates translate into significant interest savings--$17 billion in 1996 and $15 billion in 1997. Smaller savings accrue through the end of the decade as interest rates adjust to projected long-term levels.

Decreased revenues stemming from downward revisions in CBO's income projections, though, will more than offset interest rate savings by 1998. In that year, revenues are projected to be $12 billion less, leading to an overall increase of $6 billion in CBO's baseline deficit due to economic changes.

Table 8.
Continued

	Actual 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
					As a Percentage of GDP							
Revenues												
Individual income	8.2	8.5	8.6	8.5	8.5	8.5	8.6	8.7	8.7	8.8	8.8	8.9
Corporate income	2.1	2.2	2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9	1.9
Social insurance	7.0	6.9	7.0	6.9	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
Other	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.4	1.4
Total	19.0	19.4	19.4	19.1	19.1	19.0	19.0	19.0	19.0	19.0	19.0	19.0
On-budget	13.9	14.4	14.3	14.1	14.1	14.0	14.0	14.0	14.0	14.0	14.0	14.0
Off-budget	5.1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	4.9
Outlays												
Discretionary[a]												
Defense	4.3	3.8	3.7	3.6	3.5	3.5	3.4	3.3	3.3	3.2	3.2	3.1
International	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
Domestic	3.7	3.7	3.6	3.6	3.5	3.5	3.4	3.4	3.3	3.3	3.2	3.1
Unspecified reductions	0	0	-0.1	-0.3	-0.4	-0.5	-0.5	-0.5	-0.5	-0.4	-0.4	-0.4
Subtotal	8.2	7.8	7.5	7.2	6.9	6.8	6.6	6.5	6.4	6.3	6.2	6.0
Mandatory	11.9	11.9	12.2	12.5	12.7	12.9	13.1	13.3	13.5	13.7	14.0	14.3
Deposit insurance	-0.1	-0.2	-0.1	-0.1	-0.1	b	b	b	b	b	b	b
Net interest	3.1	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.5	3.5	3.6	3.6
Offsetting receipts	-1.1	-1.1	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-0.9	-0.9	-0.9	-0.9
Total	22.0	21.7	22.0	22.0	21.9	22.1	22.2	22.3	22.4	22.6	22.7	23.0
On-budget	17.8	17.6	17.8	17.9	17.8	18.0	18.2	18.2	18.4	18.6	18.8	19.1
Off-budget	4.2	4.1	4.2	4.1	4.1	4.1	4.0	4.0	4.0	4.0	3.9	3.9
Deficit	3.1	2.3	2.6	2.8	2.8	3.1	3.2	3.3	3.5	3.6	3.8	4.0
On-budget deficit	3.9	3.2	3.5	3.7	3.7	4.0	4.2	4.2	4.4	4.6	4.8	5.1
Off-budget surplus	0.8	0.9	0.9	0.9	0.9	0.9	1.0	0.9	1.0	1.0	1.0	1.0
Debt Held by the Public	51.7	51.6	52.2	52.7	53.2	53.9	54.6	55.4	56.3	57.4	58.5	59.8

SOURCE: Congressional Budget Office.

a. Projections assume that discretionary spending is equal to the spending limits that are in effect through 1998 and grows at the rate of inflation after that. Discretionary outlays would be $18 billion lower in 1999 and $39 billion lower in 2000 if no adjustment for inflation was assumed.

b. Less than 0.05 percent.

Revisions that do not result from economic developments or new legislation are classified as technical and can occur for a variety of reasons. Income tax projections, for example, have been revised upward because of higher-than-expected receipts this year and other factors.

Other, relatively small revisions to CBO's outlook have occurred since April. In addition to the reduction in outlays for the earned income tax credit achieved through legislation, CBO has reduced its estimates of EITC outlays by $2 billion to $3 billion a year throughout the projection period. EITC spending has been lower than expected this year, possibly as a result of a recent crackdown by the Internal Revenue Service on fraudulent claims. Current spending patterns also indicate that the Commodity Credit Corporation, the Postal Service, and various other mandatory programs will spend less this year than originally thought.

CBO Baseline Projections

In 1995, federal revenues are expected to equal $1,357 billion and outlays $1,518 billion. The major components of those totals and their projected growth over the next five years are depicted in Table 8 (see pages 22 and 23).

Although persistent deficits have spurred a number of recent proposals to balance the budget over the next several years, none of the proposals have yet been enacted (see Chapter 3). CBO's baseline projections therefore do not reflect the savings those proposals might achieve. Instead, the projections indicate the path that federal spending will take if government programs continue on the course implied by current law. Although spending and revenues are understandably more difficult to estimate beyond the usual five-year budget window, long-term projections often figure heavily in policymakers' decisions. Thus, CBO makes reasonable assumptions about future budget levels based on its analysis of broad trends in federal programs.

The Outlook for Revenues

Federal revenues are expected to equal 19.4 percent of GDP in 1995, up from 19.0 percent in 1994. Individual income taxes are the main source of that growth; they increase from 8.2 percent of GDP in 1994 to 8.5 percent in 1995, reflecting in part the tax increases legislated in the Omnibus Budget Reconciliation Act of 1993. The government's other major sources of revenue--corporate income taxes, social insurance taxes, excise taxes, estate and gift taxes, customs duties, and profits returned by the Federal Reserve System--remain more or less constant over the next decade as a percentage of GDP.

The Outlook for Spending

The Budget Enforcement Act of 1990 formalized the use of several categories that had long been used to describe federal spending. Discretionary spending is funded anew each year through the appropriation process. Such spending encompasses nearly the entire budgets for defense and international affairs and a wide variety of domestic programs--space and science, environmental protection, transportation, many education and social service programs, veterans' medical care, law enforcement activities, and the operation of the Internal Revenue Service, to name a few.

In its baseline projections, CBO assumes that policymakers will continue to abide by the discretionary spending limits set in law through 1998. Separate caps apply to budget authority (the authority to commit funds, the basic currency of the appropriation process) and outlays (actual spending); the stricter constraint governs. Within those limits, policymakers must make trade-offs among competing needs--defense, international, and domestic. Because the caps hold discretionary spending relatively flat even as output grows, such outlays shrink steadily in relation to the economy. From 7.8 percent of GDP today--already far below the levels of 10 percent to 12 percent that were typical of the 1960-1989 period --total discretionary spending drifts down to 6.0 percent in 2005 if it grows with inflation after 1998.

The drop in discretionary spending as a percentage of GDP is even more precipitous if appropriations are frozen at the 1998 level. As shown in Table 9, discretionary outlays would fall to 4.9 percent of GDP in 2005--less than one-fourth of total federal spending--if frozen at their 1998 level.

Outlays for entitlements and other mandatory programs, by far the largest spending category, will amount to $835 billion this year and are growing fast. Fueling that growth are expenditures for Social Security, Medicare, and Medicaid, which together account for about three-quarters of all mandatory outlays. Lawmakers control mandatory spending indirectly--not by voting annual dollar amounts but by setting standards for eligibility, benefit formulas, and so forth. Table 10 displays more information about this huge cluster of programs.

The big health entitlements essentially explain why mandatory spending, and eventually the deficit, are projected to grow in relation to GDP. Health-

Table 9.
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	1,357	1,413	1,468	1,537	1,612	1,694	1,779	1,870	1,966	2,066	2,175
Outlays											
Discretionary	546	550	553	556	556	556	556	556	556	556	556
Net interest	233	242	255	271	287	302	316	332	348	365	382
All other[a]	739	810	879	939	1,011	1,085	1,155	1,238	1,326	1,420	1,528
Total	1,518	1,602	1,686	1,766	1,854	1,944	2,027	2,126	2,230	2,341	2,467
Deficit	161	189	218	229	243	250	247	256	264	275	292
Debt Held by the Public	3,605	3,809	4,044	4,289	4,549	4,816	5,081	5,355	5,636	5,929	6,239
					As a Percentage of GDP						
Revenues	19.4	19.4	19.1	19.1	19.0	19.0	19.0	19.0	19.0	19.0	19.0
Outlays											
Discretionary	7.8	7.5	7.2	6.9	6.6	6.2	5.9	5.6	5.4	5.1	4.9
Net interest	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4	3.3	3.3
All other[a]	10.6	11.1	11.5	11.7	11.9	12.2	12.3	12.6	12.8	13.0	13.3
Total	21.7	22.0	22.0	21.9	21.9	21.8	21.6	21.6	21.5	21.5	21.5
Deficit	2.3	2.6	2.8	2.8	2.9	2.8	2.6	2.6	2.5	2.5	2.5
Debt Held by the Public	51.6	52.2	52.7	53.2	53.7	54.0	54.2	54.3	54.4	54.4	54.4

SOURCE: Congressional Budget Office.

NOTE: Projections assume that discretionary spending is equal to the spending limits that are in effect through 1998. Discretionary spending is held constant at the 1998 level from 1999 through 2005.

a. Spending for all other categories--mandatory outlays, deposit insurance, and offsetting receipts--would be the same as in Table 8.

Table 10.
CBO Baseline Projections for Mandatory Spending (By fiscal year, in billions of dollars)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Means-Tested Programs											
Medicaid	89	99	110	122	135	148	163	178	195	212	232
Food Stamps[a]	26	27	29	30	32	33	35	37	39	40	42
Supplemental Security Income	24	24	30	33	36	43	39	47	50	54	63
Family Support	18	19	19	20	20	21	21	22	23	24	24
Veterans' Pensions	3	3	3	3	3	3	3	3	3	3	3
Child Nutrition	8	8	9	9	10	11	11	12	13	13	14
Earned Income Tax Credit	15	18	20	21	22	23	24	25	26	27	28
Student Loans[b]	4	3	3	3	3	3	3	3	4	4	4
Other	3	4	4	5	5	6	6	7	7	8	8
Total, Means-Tested Programs	191	205	226	245	266	291	306	333	359	386	420
Non-Means-Tested Programs											
Social Security	333	352	371	391	412	434	456	480	505	532	560
Medicare	178	199	219	240	263	288	315	345	379	416	458
Subtotal	511	551	590	631	675	722	771	825	884	948	1,018
Other Retirement and Disability											
Federal civilian[c]	43	44	46	49	51	54	57	59	62	65	69
Military	28	28	30	31	33	34	36	38	39	41	43
Other	5	4	4	5	5	5	5	5	5	5	5
Subtotal	75	76	80	84	89	93	97	102	106	111	116
Unemployment Compensation	21	24	25	26	27	28	30	31	33	34	35
Other Programs											
Veterans' benefits[d]	17	17	19	19	20	22	23	23	24	25	27
Social services	6	6	6	6	6	6	6	6	6	6	6
Credit reform liquidating accounts	-1	-4	-6	-7	-7	-7	-7	-7	-7	-7	-7
Other	15	18	18	19	19	17	19	19	19	19	19
Subtotal	37	37	37	37	38	39	41	42	43	44	46
Total, Non-Means-Tested Programs	644	687	732	778	829	882	940	1,000	1,066	1,137	1,215
Total											
Total Mandatory Spending	835	893	958	1,023	1,095	1,172	1,246	1,333	1,425	1,523	1,635

SOURCE: Congressional Budget Office.

NOTE: Spending for major benefit programs shown in this table includes benefits only. Outlays for administrative costs of most benefit programs are classified as domestic discretionary spending; Medicare premium collections are classified as offsetting receipts.

a. Includes nutrition assistance to Puerto Rico.

b. Formerly known as guaranteed student loans.

c. Includes Civil Service, Foreign Service, Coast Guard, and other retirement programs, and annuitants' health benefits.

d. Includes veterans' compensation, readjustment benefits, life insurance, and housing programs.

related mandatory spending is growing considerably faster than the rest of the economy. Rising at a rate of about 10 percent a year, total Medicaid and Medicare outlays are projected to more than double by 2005. That rapid growth helps explain why the Hospital Insurance Trust Fund is expected to begin running a deficit in the current fiscal year and will be out of money in 2001. Combined, Medicaid and Medicare will expand dramatically in relation to GDP, from 3.8 percent in 1995 to 6.0 percent in 2005. CBO projects that those two programs alone will nearly equal total discretionary spending at the end of 10 years or easily surpass it if discretionary spending is not allowed to grow with inflation after 1998. (See Appendix D for a discussion of national expenditures on health care.)

Deposit insurance spending spurted from 1988 to 1991 but then subsided, turning negative in 1993 and 1994 (see Table 8). CBO expects that net outlays will continue to be negative but in shrinking amounts after 1995, as proceeds from liquidations begin to dry up and as the government cuts the assessment that institutions must pay to the Bank Insurance Fund on insured deposits.

Net interest payments for the past few years have been remarkably flat (around $200 billion a year), largely because of low interest rates. However, the combination of higher interest rates early in 1995 and a persistently large deficit will boost net interest to $233 billion in 1995 and over $400 billion in 2005. Correspondingly, federal debt will continue to increase, with debt held by the public rising to almost 60 percent of GDP in 2005. Another measure of debt that will be receiving a lot of attention as the Treasury nears the ceiling on federal borrowing authority this fall is the debt subject to limit. Chapter 4 discusses that measure and projects its future growth.

The last category of outlays, offsetting receipts, is composed of various receipts and collections that are recorded as negative outlays rather than as revenues. Those receipts come either from the public (such as voluntary Medicare premiums or payments for licenses to use portions of the electromagnetic spectrum) or from within the government (such as agencies' contributions to retirement funds). Offsetting receipts amount to a steady 1 percent of GDP in CBO's projections.

Ten-year projections inherently carry with them a great deal of uncertainty. Unexpected changes in economic growth or interest rates can have profound effects on revenues and outlays. Also, unanticipated occurrences will certainly affect federal finances 10 years down the road. Nevertheless, despite the uncertainties surrounding the economic and budget projections, attempts to eliminate the deficit within the next 10 years will clearly require significant changes in current fiscal policy.

A Comparison with the Administration's Projections

At the end of July, the Administration's Office of Management and Budget (OMB) issued its midsession review of the budget. In that publication, the Administration outlined a budgetary plan for fiscal years 1996 through 2005 that included reductions in corporate subsidies and outlay savings designed to make large reductions in the federal deficit. The President's plan, though, starts from a baseline that differs from CBO's baseline by growing amounts through 2005 (see Table 11).

CBO and OMB agree about the current year's deficit; by 2005, however, CBO's estimate of the deficit under current policies is $214 billion above OMB's projection. Small differences in economic assumptions along with other, technical estimating differences add up to large discrepancies by the end of the projection period.

On average, the Administration foresees slightly faster economic growth and lower inflation (as measured by the consumer price index) than does CBO. Because the CPI affects indexed benefit programs and tax brackets, and the GDP deflator affects estimates of taxable income, CBO's assumption of a larger gap between the two growth rates adds to its projection of the deficit. Projections of economic growth and inflation diverge by just 0.1 percentage point a year; but combined with offsetting technical differences, that translates into a $76 billion gap in revenues in 2005.

Estimating differences unrelated to economic assumptions also contribute to the difference between CBO's estimate of the baseline deficit and the Administration's. In 2005, about $52 billion of the difference in projected spending stems from differences in Medicare and Medicaid. Although CBO believes that the growth of those programs will slow from the extremely high rates of recent years, it is not quite as optimistic as the Administration about the extent to which such a slowdown would occur without a change in policy.

The Federal Sector of the National Income and Product Accounts

The projections summarized so far in this chapter draw on the usual labels--revenues by source, outlays by category--that are familiar to policymakers. Economists, though, often use another approach for

Table 11.
Comparison of CBO Baseline with OMB Midsession Review Baseline (By fiscal year, in billions of dollars)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
OMB Midsession Review Baseline Deficit	160	185	197	194	202	208	206	216	222	235	248
Differences											
Outlays											
Discretionary	-5	-1	-1	1	1	2	2	3	4	5	5
Mandatory											
Social Security	-1	2	3	4	4	5	6	7	8	9	9
Medicare	3	2	3	4	8	10	12	15	20	25	32
Medicaid	1	3	5	8	10	12	14	15	17	18	20
Other	1	-1	a	-1	6	8	14	16	20	22	26
Subtotal	5	5	11	14	28	35	46	54	65	75	88
Net interest	1	-5	-6	-5	-3	a	2	11	21	32	44
Total	a	-1	4	10	27	37	50	68	91	112	138
Revenues	1	5	17	24	32	43	51	57	62	66	76
Deficit	1	4	22	35	59	80	101	125	153	178	214
CBO Baseline Deficit	161	189	218	229	261	288	308	340	375	414	462

SOURCES: Congressional Budget Office; Office of Management and Budget.

NOTES: Both baselines assume that discretionary spending is equal to the spending limits that are in effect through 1998 and grows at the rate of inflation after that.

Reductions in revenues are shown as positive because they increase the deficit.

a. Less than $500 million.

Table 12.
Relationship of the Budget to the Federal Sector of the National Income and Product Accounts
(By fiscal year, in billions of dollars)

	Actual 1994[a]	1995	1996	1997	1998	1999	2000
			Receipts				
Revenue (Budget basis)[b]	1,258	1,357	1,413	1,468	1,537	1,612	1,694
Differences							
Netting and grossing							
Government contributions for employee retirement	57	58	60	63	67	70	74
Medicare premiums	18	20	20	22	24	26	27
Deposit insurance premiums	7	7	2	2	2	2	2
Other	3	9	3	c	c	-2	-2
Geographic exclusions	-2	-3	-3	-3	-3	-3	-3
Other	10	-3	c	3	2	2	c
Total	92	89	83	88	92	96	98
Receipts (NIPA basis)	1,349	1,445	1,496	1,555	1,629	1,708	1,792
			Expenditures				
Outlays (Budget basis)[b]	1,461	1,518	1,602	1,686	1,766	1,873	1,982
Differences							
Netting and grossing							
Government contributions for employee retirement	57	58	60	63	67	70	74
Medicare premiums	18	20	20	22	24	26	27
Deposit insurance premiums	7	7	2	2	2	2	2
Other	3	9	3	c	c	-2	-2
Lending and financial transactions							
Deposit insurance	1	11	5	1	1	c	-1
Other	-1	-3	-1	1	2	1	c
Defense timing adjustment	1	1	5	1	1	1	1
Geographic exclusions	-9	-9	-10	-10	-11	-11	-12
Other	-8	-4	-4	-8	-8	-8	-14
Total	68	90	82	73	78	79	75
Expenditures (NIPA basis)	1,529	1,608	1,684	1,759	1,845	1,951	2,057
			Deficit				
Deficit (Budget basis)[b]	203	161	189	218	229	261	288
Differences							
Lending and financial transactions	c	8	5	2	3	c	-2
Defense timing adjustment	1	1	5	1	1	1	1
Geographic exclusions	-6	-7	-7	-7	-8	-8	-9
Other	-18	-1	-3	-11	-10	-10	-14
Total	-24	2	-1	-15	-14	-17	-24
Deficit (NIPA basis)	180	163	189	203	215	244	265

SOURCE: Congressional Budget Office.
NOTE: Projections assume that discretionary spending is equal to the spending limits that are in effect through 1998 and grows at the rate of inflation after that.
a. Differences estimated by CBO. Actual NIPA receipts, expenditures, and deficit for 1994 are subject to revision by the Department of Commerce, Bureau of Economic Analysis.
b. Includes Social Security and the Postal Service.
c. Less than $500 million.

Table 13.
Projections of Baseline Receipts and Expenditures Measured by the National Income and Product Accounts (By fiscal year, in billions of dollars)

	Actual 1994[a]	1995	1996	1997	1998	1999	2000
			Receipts				
Personal Tax and Nontax Receipts	552	599	636	664	700	738	780
Corporate Profits Tax Accruals	161	177	173	180	186	194	201
Indirect Business Tax and Nontax Accruals	93	97	94	92	94	95	97
Contributions for Social Insurance	543	572	592	619	649	681	714
Total	1,349	1,445	1,496	1,555	1,629	1,708	1,792
			Expenditures				
Purchases of Goods and Services							
Defense	296	288	293	299	307	319	330
Nondefense	144	148	154	161	168	174	181
Subtotal	439	436	446	460	475	493	511
Transfer Payments							
Domestic	660	700	752	801	852	907	964
Foreign	16	15	15	15	16	16	16
Subtotal	676	715	766	816	868	923	980
Grants-in-Aid to State and Local Governments	195	213	225	239	256	274	292
Net Interest	186	213	221	231	246	263	278
Subsidies Less Current Surplus of Government Enterprises	32	31	31	34	35	38	38
Required Reductions in Discretionary Spending	*	*	-6	-22	-36	-39	-43
Total	1,529	1,608	1,684	1,759	1,845	1,951	2,057
			Deficit				
Deficit	180	163	189	203	215	244	265

SOURCE: Congressional Budget Office.

NOTES: Projections assume that discretionary spending is equal to the spending limits that are in effect through 1998 and grows at the rate of inflation after that.

* = not applicable.

a. Differences estimated by CBO. Actual NIPA receipts, expenditures, and deficit for 1994 are subject to revision by the Department of Commerce, Bureau of Economic Analysis.

measuring the government's activities. The federal sector of the national income and product accounts (NIPAs) divides the government's spending and receipts into categories that are conventionally used to analyze domestic production and income. That categorization allows economists to track the relationship between the government and other sectors of the economy.

Just a few major differences distinguish the NIPA versions of federal receipts and expenditures from their budget analogues. Netting and grossing adjustments move some collections, mainly those labeled offsetting receipts in the budget, from the spending to the receipts side of the NIPAs (see Table 12 on page 29). Most are recorded in the budget as negative outlays because they do not result from the government's taxing power. Shifting them to the receipts side of the NIPA ledger gives the users a fuller picture of government receipts regardless of source and does not affect the total deficit.

Macroeconomic analysis typically disregards transactions that merely reflect the transfer of existing assets and liabilities and do not contribute to current production. The NIPAs therefore exclude lending and financial transactions that appear in the budget. Prominent among such adjustments are those for deposit insurance outlays and for direct loans and guarantees made before 1992 (when credit reform was enacted). Other, relatively minor factors that cause the NIPA and budget totals to diverge are geographic adjustments (the exclusion of Puerto Rico, the Virgin Islands, and a few other areas from domestic economic statistics) and timing adjustments (such as the recording of corporate taxes when accrued rather than paid, adjustments for irregular numbers of benefit checks or paychecks because of calendar quirks, and so forth).

Tracing the relationship between the NIPA and the budget data is complicated by the fact that the Bureau of Economic Analysis regularly revises the NIPA data--sometimes by large amounts. Budget totals, in contrast, seldom receive more than negligible revisions. Nevertheless, when the dust finally settles, the NIPA deficit generally resembles the budget deficit excluding deposit insurance--echoing CBO's frequent emphasis on that measure in its regular budget reports.

The NIPA federal sector generally portrays receipts according to their sources and expenditures according to their purpose and destination (see Table 13). Receipts are split into four large categories--personal tax and nontax receipts, corporate profits tax accruals, indirect business tax and nontax accruals, and social insurance contributions--whose labels summarize the nature of the collection and the identity of the payer. The term "nontax" indicates that NIPA receipts include some charges, such as fees and premiums, that are not generally treated as revenues in the budget.

Federal spending can take the form of defense and nondefense purchases (which enter directly into GDP), transfers (most of which find their way into personal income and from there into consumption or saving), grants to state and local governments (which may end up as state and local purchases or transfers), net interest, and the subsidies less the current surplus of government enterprises such as the Postal Service and public housing authorities. A final category--required reductions in discretionary spending--appears in Table 13 as a consequence of the discretionary spending caps that are mandated by law. Those caps will limit future spending for programs funded through the appropriation process. Although no one can predict how particular programs will fare, the deepest effects of the required reductions will almost certainly be felt in the NIPA categories of defense and nondefense purchases and grants.

Chapter Three

The Congressional Budget Resolution and the Economic Effects of Balancing the Budget

The budget resolution adopted by the Congress earlier this summer proposes a dramatic change in fiscal policy that would lead to a balanced budget in 2002. It calls for reducing deficits over the 1996-2002 period by about $1.25 trillion compared with the Congressional Budget Office's projections under current policy. This change in policy is not reflected in the baseline economic and budget projections detailed in Chapters 1 and 2. Although the Congress has adopted the budget resolution, it has not completed action on the legislation needed to implement the plan--to provide appropriations for 1996, set new statutory caps to limit future appropriations to the levels assumed by the resolution, and make the changes in the laws governing mandatory programs to reduce spending for those programs.

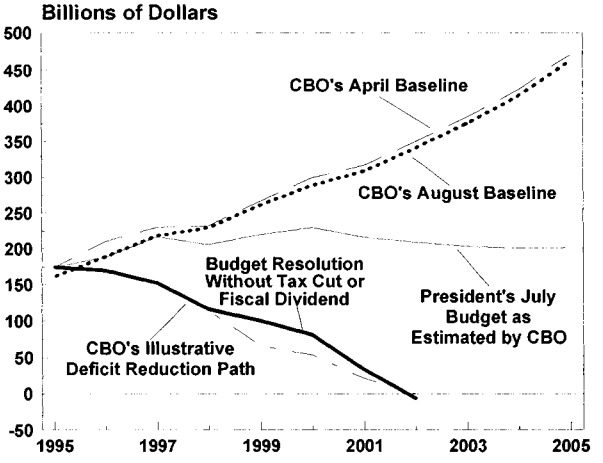
If the implementing legislation is enacted this fall as the budget resolution assumes, CBO's winter 1996 baseline budget projections will be dramatically different from those presented in Chapter 2. CBO believes that enacting legislation that puts the government on a credible path to a balanced budget by 2002 will also affect the economy. The economic effects of balancing the budget are likely to be similar to the reduction in interest rates and the slight increase in real growth that CBO detailed in Appendix B of its April 1995 report *An Analysis of the President's Budgetary Proposals for Fiscal Year 1996*. They would lower federal interest costs and increase revenues by an estimated $50 billion in 2002 and a total of $170 billion in 1996 through 2002. Those savings have been referred to as a fiscal dividend.

The budget resolution also assumes a significant tax cut, although the effects of the tax cut are not reflected in the revenue totals stated in the resolution. The resolution establishes a procedure that will allow a tax cut totaling $50 billion in 2002 and $245 billion over the 1996-2002 period if CBO certifies that reconciliation legislation, which is intended to implement the changes in mandatory spending and revenues assumed in the budget plan, produces the savings required to balance the budget in 2002.

The Budget Resolution

CBO projects that the deficit will grow to nearly $350 billion in 2002 under current policies, assuming that discretionary spending after 1998 equals the level of the statutory cap for 1998 adjusted for inflation. In contrast, the budget resolution represents a seven-year plan to balance the budget (see Figure 12). Since the budget resolution is based on economic and technical assumptions that are largely the same as those CBO used in its baseline projections in April 1995, the budget resolution assumes that significant changes in policy are required to achieve a balanced budget by 2002. (Because the budget resolution is based on the April projections and because there is little difference for most years between CBO's April projections and the projections described in Chapter 2 of this report, this chapter uses the April baseline as the starting point for describing the budget resolution and its effects.)

Figure 12.
Comparison of Projected Deficits (By fiscal year)



SOURCE: Congressional Budget Office.

The resolution proposes to balance the budget in 2002 by reducing discretionary spending in that year about $30 billion below the 1995 nominal level ($121 billion below CBO's baseline level) and by making changes in mandatory programs (particularly Medicare and Medicaid) that would reduce spending $161 billion below the level projected for 2002 under current policy. Those savings, along with proposed savings in the preceding years, would reduce the government's costs of servicing the debt by $66 billion in 2002.

The resolution also allows the Congress to consider a large tax cut if CBO certifies that the legislation implementing the budget resolution would achieve a balanced budget in 2002. Because the effects of the tax cut are not reflected in the revenue levels of the resolution, the tax cut would increase the deficits stated in the resolution. However, the fiscal dividend from balancing the budget also is not reflected in the resolution totals. The effects of that dividend would fully offset the planned tax cut in 2002 and would partially offset it in the earlier years covered by the budget resolution.

Baseline Assumptions of the Budget Resolution

As is the case with almost any budget plan, the starting point for developing the budget resolution is a projection of the spending, revenues, and deficit under current policies. Such a starting point allows participants in the budget process to consider the appropriate changes in policy. If a particular outcome--such as a balanced budget--is desired, the baseline projections indicate how much of a change is needed to reach that goal.

Baseline projections of discretionary spending are both more ambiguous and less important than baseline projections of mandatory spending and revenues. Discretionary spending is determined by the amount appropriated in legislation enacted each year. With minor exceptions, current laws do not provide discretionary appropriations for 1996 or any subsequent year. Thus, it is not clear what current policy is regarding spending in those years.

This ambiguity allows different interpretations of current-policy baselines for discretionary spending. For example, the baseline used by the Senate Committee on the Budget assumed that appropriations for nondefense accounts in 1996 through 2002 would be the same as in 1995 but that appropriations for defense accounts would equal President Clinton's February 1994 budget request (adjusted to reflect actual appropriations for 1995). In describing the discretionary spending in the budget resolution, the House Committee on the Budget compared the levels recommended for 1996 through 2002 with estimated spending in 1995. In contrast, the CBO baseline discussed in this chapter assumes that discretionary spending will equal the statutory limits that apply through 1998 and will increase at the rate of inflation after 1998.

Because setting the policy for discretionary spending in future years simply requires determining the amount to be appropriated in those years, agreeing on a discretionary baseline is not crucial to reaching agreement on the policy or defining it. In the end, the specified level of discretionary spending represents the same policy whether it is described as a cut from an inflated baseline or an increase above zero funding. The difference between CBO's baseline with discretionary inflation after 1998 and the baseline for discretionary spending used by the budget committees does not reflect any difference in economic or technical assumptions, and the difference is therefore not included in the baseline adjustments in

Table 14. However, the difference between CBO's baseline and the discretionary spending proposed in the resolution is separated into the effects from freezing discretionary spending at the 1995 appropriated level and the additional cuts required to reach the levels specified in the resolution.

In contrast to the process that determines discretionary spending, laws currently in place will determine mandatory spending and revenues in future years if no new legislation is enacted. Laws governing mandatory programs usually define who is eligible for benefits and set rules that determine the amount to be paid to beneficiaries based on their characteristics such as age, income, or contributions paid into the program fund. Revenues are governed by laws defining the taxes to be paid on certain types of income or on certain transactions. Current policy for mandatory programs and revenues simply means the eligibility rules, benefit levels, and tax rules specified in current laws. Most analysts agree on what those laws provide. But the level of mandatory spending and revenues projected under those laws depends on assumptions about the number of people who will be eligible, their characteristics, the level of taxable income that will be reached, and a host of other factors referred to as economic and technical assumptions.

Economic and technical assumptions can have a major impact on the baseline projections of mandatory spending and revenues, and in turn, those projections can have a major impact on policy proposals and decisions. For instance, the President has presented proposals in his July 31 *Mid-Session Review of the 1996 Budget* that are intended to lead to a balanced budget by 2004. The economic and technical assumptions in the Administration's baseline are slightly more optimistic than CBO's, as discussed in Chapter 2. Because the cumulative effect of those differences reduces the baseline deficits estimated by the Administration (spending is lower and revenues are higher) compared with CBO's projections, the deficit reduction proposed by the President is significantly smaller than the budget resolution calls for. Using CBO's economic and technical assumptions, the President's proposals would result in deficits that hover around $200 billion from 2002 through 2005 (see Figure 12 and testimony by the Director of CBO before the House Committee on the Budget on August 3, 1995).

The budget resolution, however, is essentially based on CBO's economic and technical assumptions; the mandatory spending and revenue baseline used in developing the budget resolution is largely the same as CBO's April 1995 baseline. The most significant adjustment to that baseline results from assuming that annual increases in the consumer price index will be 0.2 percentage points lower starting in calendar year 1998 than CBO's baseline had assumed. That adjustment reflects CBO's estimate that its baseline economic projections, which were completed in December 1994, understated the reduction in the reported CPI that is likely to result when the Bureau of Labor Statistics rebenchmarks the CPI in 1998. As shown in Table 14, the CPI adjustment, which lowers mandatory spending and raises revenues, reduces the baseline projection of the deficit in 2002 by $9 billion.

The budget resolution's baseline was also adjusted to account for a change in the method of calculating the subsidy costs of direct student loans. The resolution requires that estimates made for purposes of the Congressional Budget Act include the costs of administering the direct student loan program in the subsidy costs of the loans. Recalculating the subsidies of direct loans increased the projected baseline cost of the student loan program by almost $1 billion in 2002.

The only other significant adjustment dealt with excise taxes on oil and chemical feedstock that are dedicated to Superfund and are scheduled to expire in December 1995. CBO's baseline follows the baseline rules for revenues set forth in section 257(b) of the Balanced Budget and Emergency Deficit Control Act of 1985, as amended, and assumes that expiring excise taxes that are dedicated to a trust fund will be extended at current rates. The budget resolution's baseline assumes that the Superfund taxes will expire as provided under current law, reducing baseline revenues by less than $1 billion in 2002.

The budget resolution also assumes that balancing the budget will produce lower interest rates and a slightly higher rate of economic growth than the

Table 14.
Changes in the Budget Resolution from CBO's April Baseline (By fiscal year, in billions of dollars)

	1996	1997	1998	1999	2000	2001	2002	Total, 1996-2002
CBO April Baseline Deficit[a]	210	230	232	266	299	316	349	*
Baseline Adjustments[b]								
CPI rebenchmarking[c]	0	0	0	-1	-3	-6	-9	-18
Other adjustments	1	1	1	2	2	1	1	10
Total[c]	1	1	1	1	-1	-4	-8	-9
Policy Changes								
Outlays								
Discretionary								
Freeze[d]	-8	-9	-12	-35	-55	-75	-96	-289
Additional savings	-10	-21	-27	-24	-20	-24	-25	-151
Subtotal	-18	-29	-39	-59	-75	-99	-121	-440
Mandatory								
Medicare	-8	-18	-27	-37	-49	-60	-71	-270
Medicaid	-4	-8	-16	-24	-33	-43	-54	-182
Other	-10	-19	-25	-26	-29	-30	-36	-175
Subtotal	-22	-45	-67	-87	-111	-133	-161	-626
Net interest	-1	-5	-11	-20	-31	-47	-66	-181
Total Outlays	-41	-79	-117	-167	-217	-278	-348	-1,247
Revenues[c]	e	e	e	e	e	e	e	-1
Total Policy Changes	-41	-79	-117	-167	-218	-278	-348	-1,248
Total Adjustments and Policy Changes	-40	-78	-116	-166	-219	-283	-356	-1,257
Budget Resolution Deficit	170	152	116	100	81	33	-6	*

SOURCE: Congressional Budget Office based on U.S. House of Representatives, *Concurrent Resolution on the Budget for Fiscal Year 1996*, Conference Report 104-159, to accompany H. Con. Res. 67 (June 26, 1995).

NOTE: * = not applicable; CPI = consumer price index.

a. Projections assume that discretionary spending is equal to the spending limits that are in effect through 1998 and grows at the rate of inflation after that.

b. Adjustments are to projections of mandatory spending and revenues only.

c. Revenue increases are shown as negative because they reduce the deficit.

d. Savings from freezing 1996-2002 appropriations at the nominal level appropriated for 1995.

e. Less than $500 million.

CBO baseline assumes. The resulting fiscal dividend, however, is not reflected in the resolution's baseline or in the outlay, revenue, and deficit totals stated in the resolution (see Table 15).

Policy Proposals

The budget resolution assumes that very substantial changes in policy are required to balance the budget in 2002. It sets stringent limits on appropriations for fiscal years 1996 through 2002. Under those limits, defense outlays will be almost the same in 2002 as the $269 billion that CBO estimates will be paid out in 1995 and only slightly higher than the outlays that would result from freezing appropriations at the 1995 level (see Table 16). Outlays for defense in 2002 under the budget resolution are about $54 billion, or 17 percent, below the spending needed to keep pace with inflation. Planned nondefense spending in 2002 is about $30 billion lower than projected outlays in 1995. That represents more than a 30 percent reduction in real (inflation-adjusted) terms. By 2002, the real buying power of total (defense and nondefense) discretionary spending will be almost one-quarter lower than it is today.

While drafting the budget resolution, the budget committees discussed various ways to keep appropriations within the strict limits assumed by the resolution, but the final decisions about funding for particular programs will be made by the appropriations committees and the full House and Senate during consideration of appropriation bills over the 1996-2002 period. Because deeper cuts in real terms are required in each succeeding year, hard choices will have to be made every year through 2002 in order to comply with the plan set out in this year's budget resolution.

Table 15.
Budget Resolution Outlays, Revenues, and Deficits (By fiscal year, in billions of dollars)

	1996	1997	1998	1999	2000	2001	2002
Outlays							
Discretionary	534	524	518	516	520	516	515
Mandatory							
Social Security	352	371	391	411	433	456	480
Medicare	171	180	189	200	212	227	244
Medicaid	96	102	106	110	115	119	124
Other	177	184	188	203	216	221	230
Subtotal	795	837	874	925	976	1,023	1,078
Net interest	259	266	270	276	282	283	284
Total Outlays	1,588	1,627	1,661	1,718	1,778	1,822	1,876
Revenues	1,417	1,475	1,546	1,618	1,697	1,789	1,883
Deficit	170	152	116	100	81	33	-6

SOURCE: Congressional Budget Office based on U.S. House of Representatives, *Concurrent Resolution on the Budget for Fiscal Year 1996*, Conference Report 104-159, to accompany H. Con. Res. 67 (June 26, 1995).

NOTE: Neither the effects of the contingent tax cut anticipated by the budget resolution nor the fiscal dividend expected to result from balancing the budget are reflected in these figures.

Table 16.
Discretionary Outlay Savings in the Budget Resolution (By fiscal year, in billions of dollars)

	1995	1996	1997	1998	1999	2000	2001	2002
Savings from CBO Baseline with Inflation								
Appropriations at the 1995 Level Adjusted for Inflation								
Defense	269	270	278	285	295	304	315	325
Nondefense	277	286	296	307	319	331	342	354
Total	546	556	574	592	613	635	657	679
Budget Resolution								
Defense	*	264	266	265	268	272	271	271
Nondefense	*	270	258	253	248	249	246	244
Total	*	534	524	518	516	520	516	515
Budget Resolution Minus Baseline with Inflation								
Defense	*	-6	-12	-20	-27	-33	-44	-54
Nondefense	*	-16	-38	-54	-70	-82	-96	-109
Total	*	-22	-50	-74	-97	-115	-140	-164
Savings from CBO Baseline Without Inflation								
Appropriations Frozen at the 1995 Dollar Level								
Defense	269	264	264	264	264	264	264	264
Nondefense	277	280	281	281	277	276	276	276
Total	546	544	545	545	540	540	540	540
Budget Resolution								
Defense	*	264	266	265	268	272	271	271
Nondefense	*	270	258	253	248	249	246	244
Total	*	534	524	518	516	520	516	515
Budget Resolution Minus Baseline Without Inflation								
Defense	*	0	2	1	4	8	7	7
Nondefense	*	-10	-23	-28	-29	-28	-31	-32
Total	*	-10	-21	-27	-24	-20	-24	-25

SOURCE: Congressional Budget Office.

NOTES: Nondefense amounts include Violent Crime Reduction Trust Fund spending.

* = not applicable.

The planned level of discretionary spending in 2002 represents savings of $121 billion compared with CBO's baseline projection that assumes compliance with the discretionary caps and an inflation adjustment for discretionary spending after 1998 (see Table 14).[1] To reach a balanced budget in 2002, the budget resolution also calls for changes in mandatory programs that would save a total of $161 billion in that year. The budget resolution divides responsibility for achieving those savings among 11 Senate and 12 House committees. The committees are instructed to submit legislation to achieve the required savings to the budget committees of their respective Houses no later than September 22. The budget committees will then package the legislation submitted by all of the committees into an omnibus reconciliation bill.

The conferees on the budget resolution made certain assumptions about which programs would be cut in order to determine the level of savings to assign to each committee. However, the committees are not bound by those assumptions; they may achieve the required savings through any combination of cuts in programs within their jurisdiction. Nevertheless, the assumptions behind the budget resolution indicate the likely cuts in various programs. The budget committees have not provided a full description of their assumptions, but they have indicated that savings in the Medicare and Medicaid programs represent $125 billion (more than three-quarters) of the assumed total reduction in mandatory spending in 2002 (see Table 14). Medicare would be reduced below the current-policy projections by $71 billion in 2002 and by $270 billion over the 1996-2002 period. Medicaid savings would equal $54 billion in 2002 and $182 billion over seven years. These savings were assigned to the Ways and Means Committee and the Commerce Committee in the House and to the Finance Committee in the Senate.

Other significant reductions in mandatory spending over the 1996-2002 period that were specified in the conference report on the resolution include savings from agricultural programs ($13 billion), student loan programs ($10 billion), federal retiree health benefits ($5 billion), veterans' benefits ($6 billion), increased retirement contributions by federal employees or their employing agency ($4 billion), and additional proceeds from auctions by the Federal Communications Commission of portions of the electromagnetic spectrum ($14 billion). In addition, the budget resolution assumes substantial savings from various programs as a result of welfare reform legislation, but those savings were not clearly specified by the conference report. The resolution also assumes savings from the sale of assets such as naval petroleum reserves, the United States Enrichment Corporation, and the right to explore for oil and gas on a portion of the Arctic National Wildlife Refuge. Previous budget resolutions have not allowed proceeds from asset sales to count for purposes of deficit reduction, but this year's resolution includes a provision that requires them to be treated as savings for all purposes of the Congressional Budget Act.

The net policy change in revenues included in the budget resolution is very small--just $1 billion over the 1996-2002 period (see Table 14). As mentioned above, however, the budget resolution provides for a contingent tax cut that is not reflected in the budget resolution's totals. A special procedure established in the resolution, which is discussed in more detail in Box 1, will allow the Congress to consider tax cut provisions as part of the reconciliation bill if the deficit reduction legislation produced in response to the reconciliation directives achieves the level of savings required to balance the budget in 2002. The tax cut is not to exceed $50 billion in 2002 or $245 billion in 1996 through 2002. The resolution does not specify any particular changes in tax law, but the conference report indicated that taxes should be reduced on families with children, on two-earner married couples, and on savings and investment.

Because the outlay and revenue levels stated in the budget resolution show a surplus of only about $6 billion in 2002, simply adding a $50 billion revenue reduction that is not included in the resolution totals would clearly throw the budget out of balance. However, the resolution assumes that the budget will be balanced in 2002 because the $50 billion fiscal dividend in that year--which, like the tax cut, was not included in the stated resolution totals--will offset the lost revenues. Since the tax cut may be as large as $245 billion over the 1996-2002 period and the fiscal

1. The savings are smaller than the $164 billion in total savings shown in Table 16 because savings from complying with the statutory caps through 1998 are already included in the baseline used as the starting point in Table 14.

Box 1.
Certification of a Balanced Budget and Consideration of the Proposed Tax Cut

The budget resolution contains special procedures that are intended to allow the Congress to consider a $245 billion tax cut if the reconciliation legislation is consistent with the resolution and therefore provides enough savings to ensure a balanced budget in 2002. (Reconciliation is the legislative vehicle for achieving the changes in mandatory spending and revenues assumed by the budget resolution.) The procedures are slightly different for the Senate and the House (the Senate provisions are in section 205 of the budget resolution, and the House provisions are in section 210).[1] Both procedures, however, require CBO's certification that enacting the proposed reconciliation legislation would lead to a balanced budget in 2002 (assuming compliance with the discretionary spending levels assumed in the resolution) before the Senate or the House can consider proposals to cut taxes as part of the reconciliation bill.

Procedure in the Senate

Reconciliation instructions included in the budget resolution require Senate committees to submit all of their recommended reconciliation legislation to the Senate Budget Committee by September 22, except that the Finance Committee is not to include the tax cut provisions in the legislation it submits at that time. The Budget Committee then submits the reconciliation package--still excluding the tax cut provisions--to CBO. CBO must estimate whether the savings from the reconciliation legislation would balance the budget in 2002. In making that estimate, CBO is to assume compliance with the discretionary spending limits in the budget resolution unless legislation that supersedes those limits has been enacted. CBO must also use the economic and technical assumptions underlying the resolution in making its estimate. Those assumptions are largely the same as the ones CBO used in developing its April baseline and do not include the effects of the fiscal dividend described in this chapter.

If CBO estimates that the reconciliation savings are at least as great as the budget resolution assumed, it must certify that finding to the Chairman of the Senate Budget Committee, who will then submit the certification to the Senate. The Finance Committee will then submit legislation to implement the tax cut, and the Chairman of the Budget Committee will adjust the budget resolution to reflect the tax cut. The tax cut legislation can then be folded into the reconciliation bill and considered by the Senate.

Section 205 also provides for a similar estimate and certification by CBO when the House/Senate conference committee has reached agreement on the reconciliation bill. Since the tax cut will presumably be included in the conference report, CBO at that time will have to take the fiscal dividend into account in estimating whether enacting the reconciliation bill would lead to a balanced budget.

In addition to the contingencies included in the procedure described above, section 205 specifies that the entire procedure does not apply unless the reconciliation legislation complies with the sum of the reconciliation directives for the 1996-2002 period and the budget would be in balance in 2002 through 2005.

Procedure in the House

The procedure in the House is slightly different in that the tax cut is to be included in the reconciliation legislation submitted to the Budget Committee on September 22 and subsequently submitted to CBO. As in the Senate's procedure, CBO is to make its estimate assuming compliance with the discretionary spending limits of the budget resolution (unless superseded by law) and using the economic and technical assumptions underlying the budget resolution. Since the reconciliation package that the House submits to CBO is supposed to include the tax cut, however, section 210 specifies that CBO's estimate should reflect the fiscal dividend it published in Table B-4 of the *Analysis of the President's Budgetary Proposals for Fiscal Year 1996.* If CBO determines that the budget would be balanced in 2002 if the legislation was enacted, the Chairman of the House Budget Committee will certify that and will adjust the budget resolution to reflect the tax cut.

If CBO determines that the budget would not be balanced in 2002, the Chairman of the Budget Committee is to notify the Chairman of the Rules Committee. Under section 210, the Rules Committee may recommend a substitute reconciliation bill that would provide the additional savings needed to achieve a balanced budget in 2002. That substitute bill would be submitted to CBO for an estimate to be made on the same basis as the earlier estimate. If CBO determines that the substitute bill would balance the budget in 2002, the Chairman of the Budget Committee would certify that and make appropriate adjustments to the budget resolution.

Section 210 specifies that an objection (point of order) by any Representative can block the initial consideration of the reconciliation bill if the Chairman of the Budget Committee has not certified a balanced budget in 2002, but no such certification is required for House consideration of a conference report. The Rules Committee could, however, recommend a rule waiving the point of order and allowing the House to consider the bill even if a balanced budget has not been certified.

1. As included in the budget resolution, section 205 mistakenly applied to the House as well as the Senate. Under the rule (H.Res. 175) adopted by the House to govern consideration of the budget resolution, section 205 does not apply to the House.

dividend totals only $170 billion for the seven years, cumulative deficits over the period can be $75 billion higher than those stated in the resolution. The resolution does not specify how the tax cut should be distributed year by year, however, making it impossible to calculate the yearly deficits that will be projected when both the tax cut and the fiscal dividend are taken into account.

The reductions in spending for discretionary and mandatory programs assumed in the budget resolution will reduce the amount of money the federal government will have to borrow in 1996 through 2002 below the levels assumed in the CBO baseline. That reduction will lower the interest that the federal government must pay on the debt held by the public by $66 billion in 2002 and by $181 billion over the 1996-2002 period. Those savings, shown in Table 14, do not include the savings resulting from lower interest rates that are part of the fiscal dividend CBO estimates could result from balancing the budget. Additional interest costs that are not reflected in the budget resolution would be incurred, however, because of increases in the deficit resulting from tax cuts that exceed the fiscal dividend in 1996 through 2001. Calculating those costs precisely is impossible without knowing the size of the tax cut in each year, but the cumulative deficit increases could push interest costs in 2002 up by several billion dollars. The increase is likely, however, to be less than the $6 billion budget surplus shown for that year in the budget resolution.

The budget resolution also directs the House Ways and Means Committee and the Senate Finance Committee to include in their reconciliation submissions an increase in the statutory limit on federal debt. The current limit is $4.9 trillion. As discussed in Chapter 4, debt subject to the limit is likely to reach that level in October or November. The budget resolution calls for an increase in the debt limit to $5.5 trillion, which will probably be high enough to facilitate necessary borrowing until the end of 1997 if the policies proposed in the budget resolution are enacted.

Table 17.
Change in the 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	Total, 1996-2000
Change Resulting from Lower Interest Rates								
Outlays (Net interest)	-2	-6	-12	-20	-28	-36	-42	-146
Revenues (Federal Reserve earnings)[a]	b	1	2	3	4	5	5	20
Subtotal	-2	-5	-10	-17	-24	-31	-37	-126
Change Resulting from Higher Gross Domestic Product (Revenues)[a]	-1	-2	-4	-6	-8	-10	-13	-44
Total Effect on Deficit	-3	-7	-14	-23	-32	-41	-50	-170

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.

Economic and Budgetary Implications of Balancing the Budget

Enacting the Congress's plan to balance the budget by 2002 would provide a fiscal dividend by reducing federal interest costs and increasing federal revenues. CBO's April report, *An Analysis of the President's Budgetary Proposals for Fiscal Year 1996,* described those economic implications. The progressive elimination of the federal government's competition for funds in private capital markets would lower interest rates and slightly increase the potential growth of the economy over the next decade.

The path of deficit reduction in the Congressional plan roughly approximates the illustrative path of deficit reduction that CBO assumed in the April report (see Figure 12). At that time, CBO estimated that balancing the budget would yield a fiscal dividend of about $170 billion over seven years and about $50 billion in 2002 (see Table 17). Those savings would result from lower interest rates, which would cut the cost of federal payments for interest on the debt, and from greater economic growth, which would boost the tax base and tax revenues. The deficit reductions envisaged by the budget resolution seem likely to yield a similar fiscal dividend.

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 Congress is still working out the details of those decisions, some likely macroeconomic benefits that flow simply from balancing the budget are evident. 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. Inflation could increase or decrease slightly but should not be much affected. Although the road could be bumpy in the short term, 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.

The estimates in this chapter reflect only the macroeconomic effects on national saving and investment in an environment in which monetary policy offsets fiscal restraint. The actual outcomes will depend on the fiscal and monetary policy choices that are made. Closing the deficit by means that lead to particularly strong disincentives for private saving or investment, or by reducing productive government investments in infrastructure or education, could undermine the benefits of eliminating the deficit. 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 choices 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.

Although the Congressional plan specifies what will happen only for the next seven years, the course of fiscal policy in subsequent years is also important. (The resolution requires that the budget be balanced in the years 2002 through 2005 in order for the Senate to consider the tax cut anticipated by the resolution.) The growth of health spending and the need to finance the retirement of the baby boomers will put upward pressure on deficits in the years just beyond the current 10-year projection window. Unless that pressure is resisted, the economic benefits of this year's efforts could be reversed.

The Effects of Balancing the Budget

The budget resolution described above lays out targets for fiscal policy--levels of overall revenues, outlays, deficits, and public debt, and more specific targets for broad categories of spending--but legislation is still necessary to implement them. The appropriation bills for 1996, already under way, will begin the process of implementation, but many decisions remain to be made, particularly for the years beyond 1996. The resolution's deficit targets, moreover, give

Table 18.
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
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
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

SOURCE: Congressional Budget Office.

only a rough guide to what deficits will be if the resolution's legislative targets are met, because they reflect neither the fiscal dividend nor any tax cut.

Because of this uncertainty, CBO has not revised its estimates of the fiscal dividend resulting from a balanced budget. The estimates published in April should, however, provide a good approximation of the fiscal dividend that will occur if the budget resolution's plan is implemented. Without considering either tax reductions or the fiscal dividend, the resolution's deficit path is quite close to the illustrative path that CBO used for its April calculations (see Figure 12). Allowing for both a fiscal dividend and a tax cut would probably mean larger deficits in some years, but the differences may not be significant.

Increased Growth

Balancing the budget by 2002 could allow the economy to grow modestly faster--by about 0.1 percentage point a year on average. The annual level of gross national product might be about 0.8 percent higher in 2002 than it would be if fiscal policy continued on its current path (see Table 18).[2] 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 slowing the current pace of borrowing from foreigners and eliminating the need to service that debt.

The increase in national saving that results directly from reducing the deficit is likely to be partially offset by a decrease in private saving. The extent of that decrease is highly uncertain, depending 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. Over time, therefore, 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, thereby 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

2. The more familiar concept of gross domestic product measures only production in the United States and does not reflect the decline in debt-service costs paid to foreign lenders. Thus, GNP could increase by some 0.8 percent in 2002, but GDP might increase by only 0.5 percent.

possible increases in productive capacity over the next seven years is limited. The existing capital stock is large and takes years to change by a noticeable proportion. Moreover, the models that CBO has examined predict that private investment will increase by only about 20 percent of the amount of reduction in the deficit. Such an increase would raise the capital stock by 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. (Fiscal restraint usually lasts for two years or less.) If the Federal Reserve failed to offset that restraint, consumption could fall more quickly than investment and net exports could rise, possibly weakening the economy in the short run. Moreover, even if the Federal Reserve sought to offset fiscal restraint with a more expansionary monetary policy, both the size and timing of the effects of monetary policy on the economy are uncertain. Because a perfect offset would be too much to expect, balancing the budget risks some temporary reduction in real output.

Nevertheless, the danger that balancing the budget as envisaged by the budget resolution would on its own precipitate 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, seems manageable if deficit reduction follows a reasonably smooth course. Any short-term problems that might occur should not interfere with the investment and gains in productivity that would bring increased growth between now and 2002.

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 (4 percentage points).

Good arguments exist for a smaller reduction in long-term rates--between 100 and 200 basis points. That narrower range encompasses the uncertainty about the likely effects of balancing the budget. 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 actual deficit reduction 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 credibility would be likely to increase as the Congress proceeded along the path of deficit reduction. The timing of a drop 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 decline 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 they did after enactment 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.

Narrowing the range any further than 100 to 200 basis points proves difficult.[3] CBO's estimates in Table 18 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 economic estimates are subject to several risks. First, there is substantial uncertainty about how balancing the budget directly affects capital markets and growth. Second, the policy changes needed to implement the budget resolution will themselves affect the workings of the economy, sometimes in hard-to-predict ways. A third uncertainty arises because many things will happen--not just in the area of fiscal policy but in the rest of the economy--that may not be anticipated in the budget resolution's economic assumptions. CBO's current economic assumptions, described in Chapter 1, reflect economic data as of early July and already differ from those of the budget resolution, which are based on a forecast that CBO made at the end of 1994. Although the differences have little effect on the budget in 2002, they illustrate the imperfection of forecasts (see Appendix A).

Changes in the economy that are unrelated to fiscal policy could easily obscure the effects on growth and interest rates that balancing the budget would set in motion. For example, if inflation threatens to rise, the Federal Reserve might be unwilling to lower short-term interest rates as quickly as the budget-balancing scenario assumes. The estimates in Table 18 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.

3. See Appendix B in Congressional Budget Office, *An Analysis of the President's Budgetary Proposals for Fiscal Year 1996* (April 1995).

Chapter Four

Debt Subject to Limit

The Congress has long placed a cap on the Treasury's issuance of debt, covering both securities sold to the public for cash and the special securities issued to federal trust funds. Lawmakers have had to hike that limit 19 times over the past decade, and with the current ceiling likely to be reached within the next couple of months, they will soon have to take action again.

Before World War I, the Congress generally had to approve each separate issuance of federal debt. Since the Second Liberty Bond Act was passed in 1917, however, the Congress, by statute, has simply set an overall dollar ceiling on the amount of debt that the Treasury can issue. The debt ceiling typically gives the Treasury unfettered authority to issue debt for a year or two before seeking an increase, but very short term ceilings (which grant the Treasury permission to issue debt only for a few months or even days) are hardly rare.

The Treasury is now operating under a debt ceiling of $4,900 billion, enacted in August 1993. With debt subject to limit standing at $4,870 billion at the end of July and the government continuing to run deficits, the Treasury is likely to bump against the ceiling in October or November.

What the Debt Limit Covers

The debt limit applies to nearly all debt of the federal government. Thus, it covers the special securities (government account series) issued to trust funds and other government accounts as well as to debt held by the public (securities such as bills, notes, and bonds that are sold in the market to raise cash and purchased by a variety of investors, including private domestic investors, state and local governments, foreign investors, and the Federal Reserve system). Because of large deficits, debt held by the public has climbed steeply--reaching $3.6 trillion in 1995 compared with $710 billion in 1980. Internally held debt has also grown quite rapidly in recent years as Social Security and other trust funds have run large surpluses. At the end of fiscal year 1995, CBO estimates, government-held debt will amount to $1.3 trillion compared with only $200 billion in 1980.

With rare exceptions, the limit on debt does not apply to debt issued by other federal agencies, such as the Tennessee Valley Authority, which the Treasury does not control. However, few federal agencies have authority to conduct their own borrowing. The statutory limit also does not apply to debt issued by the Federal Financing Bank, which used its full authority during an interruption in the debt ceiling in 1985.

Debt subject to limit generally counts the face value of federal debt. Special rules, however, apply to securities that are sold at a discount. Savings bonds, Treasury bills, and zero-coupon bonds are all discount securities, meaning that holders of those securities collect no income at all from them until maturity, when they receive the face amount that reflects the initial purchase price plus accrued interest. If maturity is far in the future, the face amount of those securities greatly exaggerates their current

worth. Hence, such securities are included in the debt subject to limit at their purchase price when they are first sold and then at gradually greater amounts until they mature.

Together, the deficit and the trust fund surplus easily explain most of the growth in debt subject to limit (see Table 19). The deficit largely determines what the Treasury must borrow in credit markets. The trust fund surplus drives the issuance of debt to federal government accounts. Because the income--mostly earmarked revenues (such as Social Security taxes) and interest--of trust funds is likely to continue to exceed their outlays, debt subject to limit will continue growing even if the budget is brought into balance. Under the budget resolution adopted by the Congress this past June, the debt subject to limit would rise from its current ceiling of $4.9 trillion to nearly $6.7 trillion at the end of 2002.

At one time, the debt ceiling may have been an effective control on the budget when most spending was subject to annual appropriations. But discretionary spending is now a much lower proportion of total spending, amounting to only 36 percent in 1995. Under the recently adopted budget resolution, discretionary outlays will continue to fall further to 27.5 percent by 2002. The rise in mandatory spending and growth of the trust fund surplus has turned the statutory limit on federal debt into an anachronism. Through its regular budget process, the Congress already has ample opportunity to vote on overall revenues, outlays, and deficits. Voting separately on the debt is ineffective as a means of controlling deficits because the decisions that necessitate borrowing are made elsewhere. By the time the debt ceiling comes up for a vote, it is too late to balk at paying the government's bills without incurring drastic consequences.

Table 19.
Projections of Debt Subject to Limit Under the Budget Resolution
(By fiscal year, in billions of dollars)

	1995	1996	1997	1998	1999	2000	2001	2002
Debt Subject to Limit, Start of Year	4,605	4,887	5,195	5,494	5,764	6,023	6,273	6,487
Changes								
Deficit	161	170	152	116	100	81	33	-6
Trust fund surplus	103	121	127	134	139	151	162	173
Other changes[a]	17	17	20	20	20	18	19	19
Total	282	308	299	270	259	250	215	185
Debt Subject to Limit, End of Year	4,887	5,195	5,494	5,764	6,023	6,273	6,487	6,672

SOURCE: Congressional Budget Office.

NOTES: The current statutory ceiling is $4,900 billion.

The figures shown here are based on the outlay and revenue levels reported in the budget resolution. Those reported levels do not include the effects of a contingent tax cut that the resolution provides for or the effect of the so-called fiscal dividend that CBO estimates would result from balancing the budget. Also, the figures reflect changes to CBO's estimates for 1995 that were completed after the resolution was passed.

a. Mostly investments by government accounts that are not trust funds and net outlays of credit financing accounts.

As a result, because raising the debt ceiling is considered to be "must pass" legislation, the debt limit is frequently used as a device to force action to obtain some other legislative goal. For example, in 1990, the Congress voted seven times on the debt limit between August 9 and November 5 as the budget summit meetings progressed and the Congress considered the resulting budget resolution and reconciliation bill.

What Are the Consequences of Not Raising the Debt Limit?

Financial markets find the debt limit a periodic source of anxiety. The government has never defaulted on its principal and interest payments, nor has it failed to honor its other checks. However, even a temporary default--that is, a few days' delay in the government's ability to meet its obligations--could have serious repercussions in the financial markets. Those repercussions include a permanent increase in federal borrowing costs relative to yields on other securities as investors realize that Treasury instruments are not immune to default.

Failing to raise the debt ceiling would not bring the government to a screeching halt the way that not passing appropriation bills would. Employees would not be sent home, and checks would continue to be issued. If the Treasury was low on cash, however, there could be delays in honoring checks and disruptions in the normal flow of government services. Carried to its ultimate conclusion, defaulting on payments would have much graver economic consequences--such as loss of confidence in government and a higher risk premium on Treasury borrowing--than failing to enact discretionary appropriations by the start of a fiscal year.

Important Upcoming Dates

The date on which the debt ceiling is reached depends on the Treasury's borrowing schedule, which in turn is based on the government's cash outflows and cash inflows. The Treasury tries to maintain a predictable borrowing calendar to minimize uncertainty in the market and help reduce costs. Many receipts and outlays also follow a predictable pattern, which helps in projecting the Treasury's cash needs.

Borrowing

Treasury securities are generally issued according to a regular schedule, except cash management bills, which are issued when needed to temporarily cover shortfalls in cash balances (see Table 20 for expected issue dates from September through November). Three-month and six-month bills are auctioned on a weekly basis, with 52-week bills offered every four weeks. As for longer-term securities, two-year and five-year notes are sold at the end of each month, with three-year and 10-year notes auctioned quarterly and 30-year bonds sold twice a year.

The sizes of note and bond auctions are generally stable from one issuance to the next, usually varying by no more than $0.5 billion, if they change at all. Fluctuations in financing requirements are therefore made up through bill auctions. The predictability of Treasury issues, as well as the market's liquidity, may help the Treasury keep down the cost of borrowing.

Debt issued to trust funds plays an important role in calculating the debt limit. As shown in Table 21, debt held by government accounts represents over one-quarter of all outstanding debt subject to limit. Social Security, Medicare, and federal retirement trust funds account for the bulk of those holdings.

Purchases and sales of debt by trust funds are handled within the Treasury and do not flow through credit markets. Similarly, interest on those securities is simply an intragovernmental transfer: it is paid by one part of the government to another part and adds nothing to the deficit. Thus, participants in the financial markets view those investments accurately enough as a bookkeeping entry, an intragovernmental I.O.U. Nevertheless, transactions in government account series debt accrue against the debt ceiling. Moreover, continued investment of trust fund surpluses may cause the Treasury to bump against the debt limit even without a major payment to the pub-

Table 20.
Calendar of Treasury Borrowing, September to November 1995

Auction Date	Type of Issue	Settlement Date[a]
September 5	3-month bills	September 7
September 5	6-month bills	September 7
September 11	3-month bills	September 14
September 11	6-month bills	September 14
September 14	52-week bills	September 21
September 18	3-month bills	September 21
September 18	6-month bills	September 21
September 25	3-month bills	September 28
September 25	6-month bills	September 28
September 26	2-year notes	October 2
September 27	5-year notes	October 2
October 2	3-month bills	October 5
October 2	6-month bills	October 5
October 10	3-month bills	October 12
October 10	6-month bills	October 12
October 12	52-week bills	October 19
October 16	3-month bills	October 19
October 16	6-month bills	October 19
October 23	3-month bills	October 26
October 23	6-month bills	October 26
October 24	2-year notes	October 31
October 25	5-year notes	October 31
October 30	3-month bills	November 2
October 30	6-month bills	November 2
November 6	3-month bills	November 9
November 6	6-month bills	November 9
November 7	3-year notes	November 15
November 8	10-year notes	November 15
November 9	52-week bills	November 16
November 13	3-month bills	November 16
November 13	6-month bills	November 16
November 20	3-month bills	November 23
November 20	6-month bills	November 23
November 21	2-year notes	November 30
November 22	5-year notes	November 30
November 27	3-month bills	November 30
November 27	6-month bills	November 30

SOURCE: Congressional Budget Office based on the regularly announced schedule of the Department of the Treasury.

NOTE: Does not include cash management bills.

a. Date when debt is actually issued and the Treasury collects money.

Table 21.
Relationship Between Debt Held by the Public and Debt Subject to Limit
(End of fiscal year, in billions of dollars)

	Actual			Projected
	1980	1985	1990	1995
Debt Held by the Public	710	1,500	2,411	3,605
Debt Held by Government Accounts				
Trust funds				
Social Security[a]	31	37	215	481
Medicare[b]	19	32	110	147
Civil Service Retirement	74	127	236	375
Military Retirement	0	12	65	110
Unemployment Insurance	13	17	51	48
Highway	11	12	17	17
Airport and Airways	5	7	14	12
Railroad Retirement	3	4	9	13
Federal Deposit Insurance Corporation[c]	10	16	c	c
Other	14	23	39	51
Subtotal	180	287	755	1,255
Other government accounts				
Deposit insurance agencies[c]	5	7	11	29
Other[d]	14	24	29	38
Subtotal	19	31	41	67
Total	199	318	796	1,322
Gross Federal Debt	909	1,818	3,207	4,927
Exclusions from Debt Limit[e]	f	6	-45	-40
Debt Subject to Limit	909	1,824	3,161	4,887

SOURCE: Congressional Budget Office based on information from the Department of the Treasury and the Office of Management and Budget.

a. Old-Age and Survivors Insurance and Disability Insurance.

b. Hospital Insurance (Medicare Part A) and Supplementary Medical Insurance (Part B).

c. Until August 1989, the Federal Deposit Insurance Corporation Fund was classified as a trust fund. Its successor, the Bank Insurance Fund, is not a trust fund and is thus included in "other government accounts." Other deposit insurance funds include the Federal Savings and Loan Insurance Corporation (FSLIC) Fund and its successor, the FSLIC Resolution Fund; the Savings Association Insurance Fund; and the Credit Union Share Insurance Fund.

d. Beginning in 1989, includes Treasury securities purchased in the open market by the Tennessee Valley Authority.

e. Mostly debt issued by the Federal Financing Bank and debt issued by federal agencies other than the Treasury.

f. Less than $500 million.

lic or auction scheduled on that day. Indeed, a lump sum credit to the Civil Service Retirement trust fund of around $20 billion on September 30 and a similar payment of around $11 billion to the Military Retirement trust fund on October 1 will involve large issuances of government account series debt.

Cash Inflows

If the Treasury is barred from borrowing, it can count only on taxes and other current receipts to replenish its cash balances. Withheld income and employment taxes are the backbone of the Treasury's deposits, accounting for the majority of all non-debt-related deposits. Withheld taxes flow in fairly smoothly at about $3 billion to $4 billion per day. By contrast, corporate income taxes are concentrated around four major payments dates: April 15, June 15, September 15, and December 15. Given today's large budget deficits, though, the Treasury cannot count on such inflows to cover its cash drains for very long.

Cash Outflows

Two large drains on the Treasury--cash benefit payments and cash interest payments--are particularly noteworthy. Nearly all cash benefit payments for Social Security and other retirement and disability programs go out between the first and third of the month. Currently, those programs drain the Treasury's cash by about $37 billion in the first week of the month.

Cash interest payments to owners of Treasury notes and bonds take place on fixed dates. The biggest spikes occur on midquarter refunding settlement dates: February 15, May 15, August 15, and November 15. Interest payments on those dates total around $25 billion. Smaller spikes (of $4 billion to $5 billion or so) occur on other semiannual cycles, mostly at the end of each month.

Other cash withdrawals for purposes as varied as federal employees' pay, defense contracts, grants to states and localities, and Medicare are less lumpy and average about $4 billion to $6 billion per day.

So when will the Treasury hit the ceiling? It is still too early to determine the particular week that the debt ceiling will be reached, much less a specific day. With the 1995 deficit expected to total $161 billion, the federal government should be able to squeak through September with a small amount of borrowing authority remaining.

After that point, when exactly the Treasury uses up its available authority will depend on the size and timing of upcoming cash drains and on the Treasury's cash balance at the beginning of the fiscal year. Normally, the Treasury enters a new fiscal year with a cash balance of $30 billion to $40 billion. Drawing on those cash reserves and using any remaining borrowing authority, the Treasury should be able to hold out until mid-October. Note, however, that those projections do not presuppose any unusual action by the Treasury. By departing from some of its normal practices, the Treasury might even be able to hold out into early November.

The November 15 interest payment date will present a very high hurdle for the Treasury to jump and may turn out to be the actual day of reckoning. October and November are both low-revenue--and therefore high-deficit--months. The Treasury borrowed more than $27 billion in the market last October and almost $37 billion in November to meet cash needs. Even if the Treasury manages to avoid cash flow problems into early November, it is unlikely to be able to raise enough money to pay note and bond holders their interest without an increase in the debt limit before November 15.

Treasury Options to Cope with Interruptions in Borrowing Authority

During an interruption in borrowing authority, the Treasury's main objectives are to avoid default, honor government obligations, and keep operations running. To do so, in the past the Treasury has adopted various tactics to cope with interruptions in the debt ceiling (see Table 22). The Treasury's options are

Table 22.
Recent Increases in the Debt Limit

Enactment Date[a]	Amount of Limit (Billions of dollars)	Expiration Date	Treasury Actions at Close[b]
Sept. 30, 1982	1,290.2	Sept. 30, 1983	Deteriorated budget outlook necessitated action well before expiration. Increase enacted in May 1983 as a consequence of Social Security rescue package.
May 26, 1983	1,389.0	Permanent	Beginning late October 1983, delayed auctions; underinvested trust funds.
Nov. 21, 1983	1,490.0	Permanent	Beginning late April 1984, trimmed auctions; underinvested Social Security.
May 25, 1984	1,520.0	Permanent	Beginning late June 1984, trimmed auctions; underinvested Social Security.
July 6, 1984	1,573.0	Permanent	Delayed auctions (beginning late September 1984); underinvested trust funds (beginning early September); cash situation not critical.
Oct. 13, 1984	1,823.8	Permanent	Prolonged interruption associated with debate over Balanced Budget and Emergency Deficit Control Act of 1985 (commonly known as Gramm-Rudman). Underinvested trust funds beginning early September 1985; cut late-September auctions, worsening cash situation; issued debt through FFB in October; actively disinvested trust funds in order to pay benefits in early November.
Nov. 14, 1985	1,903.8	Dec. 6, 1985	More or less timely increase.
Dec. 12, 1985	2,078.7	Permanent	Used FFB temporarily to credit Social Security and preserve regular auctions August 1-15, 1986; otherwise timely.
Aug. 21, 1986	2,111.0	Permanent	Used FFB authority; underinvested trust funds beginning September 30, 1986; delayed or cut auctions beginning late September; cash situation not critical.
Oct. 21, 1986	2,300.0	May 15, 1987	Timely increase at expiration.
May 15, 1987	2,320.0	July 17, 1987	Postponed some auctions beginning July 20, 1987; cash situation not critical.
July 30, 1987	2,320.0	Aug. 6, 1987	Postponed auctions normally held in early August but settling on August 15, 1987 (midquarter refunding).
Aug. 10, 1987	2,352.0	Sept. 23, 1987	Part of Balanced Budget and Emergency Deficit Control Reaffirmation Act of 1987 (commonly known as Gramm-Rudman II) package. Rescheduled auctions normally held September 21-24, 1987; otherwise timely.
Sept. 29, 1987	2,800.0	Permanent	More or less timely increase associated with savings and loan bill.
Aug. 7, 1989	2,870.0	Oct. 31, 1989	Boosted auction sizes and accelerated settlements to build up cash balances in late October.
Nov. 8, 1989	3,122.7	Permanent	More or less timely increase before Congressional recess.
Aug. 9, 1990	3,195.0	Oct. 2, 1990	Very short term increase associated with 1990 budget summit's conclusion.
Sept. 30, 1990	3,195.0	Oct. 6, 1990	Very short term increase as 1990 budget summit agreement underwent modifications.
Oct. 9, 1990	3,195.0	Oct. 19, 1990	Borrowed up to limit on October 19 while awaiting next increase.
Oct. 19, 1990	3,195.0	Oct. 24, 1990	Delayed several auctions normally held October 18-22, 1990, but settling after scheduled expiration of ceiling.
Oct. 25, 1990	3,195.0	Oct. 27, 1990	Compressed auctions and settlements into the period between October 25 and 27, 1990.
Oct. 28, 1990	3,230.0	Nov. 5, 1990	Temporary limit until reconciliation bill (including the Budget Enforcement Act of 1990) was signed.
Nov. 5, 1990	4,145.0	Permanent	Postponed several auctions pending last-minute increase before Congressional recess.
April 6, 1993	4,370.0	Sept. 30, 1993	Next increase enacted August 1993, comfortably before expiration, as part of OBRA-93.
Aug. 10, 1993	4,900.0	Permanent	Not yet expired.

SOURCE: Congressional Budget Office based on information from the Department of the Treasury and various news items.

NOTE: FFB = Federal Financing Bank; OBRA-93 = Omnibus Budget Reconciliation Act of 1993.

a. Date signed into law, typically one to seven days after passage by the Congress.

b. Actions listed do not include suspension of sales of savings bonds and state and local government series, which are more or less routine responses to an interruption in the debt ceiling (especially after expiration of a temporary ceiling). From 1983 through 1990, the Social Security trust funds enjoyed a special arrangement under which they were credited on the first of the month with all revenues expected during that month. If fully invested, that credit caused the debt subject to limit to spike between $15 billion and $20 billion. On occasion, when constrained by the debt limit, the Treasury credited the trust funds as required but was unable to invest the resulting balances fully.

influenced by whether it is operating under a permanent or temporary debt ceiling. Permanent ceilings (such as the current one) do not expire, but the dollar amount eventually becomes inadequate. Under a permanent ceiling, the Treasury can issue debt so long as it does not violate the dollar limit; even if it is right at the ceiling, it can refinance maturing securities or take other actions that do not, on balance, raise the debt.

In stark contrast, a temporary ceiling expires on a given date. The Treasury's authority to issue debt abruptly ceases, unless it can somehow get the debt down beneath its permanent ceiling. Debt that was issued before the expiration date need not be paid off immediately because it was perfectly legal when it was issued. But the Treasury can issue no new debt, not even to refinance maturing securities; instead, it must pay them off with cash. That requirement--combined with other drains on the Treasury's funds--brings matters to a head quickly.

Among the most common responses by the Treasury to interruptions in the debt limit in the past have been:

- *Suspending Sales of Nonmarketable Debt.* Suspending the sales of savings bonds, state and local government series, and other nonmarketable debt for the duration of the interruption is a more or less routine response.

- *Trimming or Delaying Auctions of Marketable Securities.* If the Treasury is unsure whether it can legally issue bills, notes, and bonds on the settlement date, it will not auction them.

- *Underinvestment of Government Trust Funds.* This practice has frequently proved unavoidable. In many cases, the Treasury could not invest trust fund receipts fully when it was up against the debt limit. The trust funds were properly credited, but they simply held large amounts of so-called uninvested balances. Upon the passage of a new debt ceiling, the Congress has routinely voted to invest those balances and replenish any trust funds that lost interest income as a result of the interruption.

  Only once did the underinvestment of trust funds go a step further: in November 1985, the Treasury redeemed trust fund securities a few days early to create room under the debt ceiling to auction regular, marketable securities. The money raised in those auctions permitted the payment of benefits to Social Security recipients, otherwise imperiled by the Treasury's razor-thin cash balances. During a period when issuing debt has been suspended, the Treasury retains the option to disinvest particular trust funds.

The Debt Limit and Deficit Reduction

Limiting the Treasury's borrowing authority is not a productive method of achieving deficit reduction. Significant deficit reduction can best be accomplished by legislative decisions that reduce outlays or increase revenues. Failing to raise the debt limit in a timely manner, though perhaps bringing a difficult vote on legislation to a head, only serves to make the Treasury's job of paying the government's bills more difficult. An extended delay could have a significant effect on the government's credibility and the interest rates that it must pay on future borrowing.

Appendixes

Appendix A

Evaluating CBO's Record of Economic Forecasts

Since issuing its first forecast in 1976, the Congressional Budget Office (CBO) has compiled a record of economic predictions that compares favorably with the track records of five Administrations and the consensus forecasts of a sizable sample of private-sector economists. Although the margin is slight, CBO's forecasts have generally been closer than the Administration's to the actual values of several economic indicators that are important for projecting the budget. Moreover, during the 12 years for which comparisons are possible, CBO's forecasts have been about as accurate as the average of the 50 or so forecasts that make up the *Blue Chip* consensus survey. Comparing CBO's forecasts with that survey suggests that when CBO's economic predictions missed the mark by a wide enough margin to contribute to sizable misestimates of the deficit, those errors probably reflected limitations that confronted all forecasters.

These conclusions echo the findings of previous studies published by the Congressional Budget Office and other government and academic reviewers. They emerge from an evaluation of the accuracy of short-term forecasts for four economic indicators: growth in real (inflation-adjusted) output, inflation in the consumer price index (CPI), interest rates on three-month Treasury bills in both nominal and real terms, and interest rates on 10-year Treasury notes and Aaa corporate bonds. In carrying out this evaluation, CBO compiled two-year averages of its forecasts for the four indicators and compared them with historical values as well as with the corresponding forecasts of the Administration and the *Blue Chip* consensus.

Both CBO and the Administration have tended to err toward optimism in their forecasts over a two-year horizon. In other words, the average forecast error for real growth was an overestimate, and the average error for inflation was an underestimate. The Administration has been more optimistic than CBO in forecasting interest rates, with the average error being an underestimate. Overall, the average errors in the Administration's two-year forecasts were slightly larger than in CBO's. Finally, CBO's forecasts appear to be about as accurate as those of the *Blue Chip* consensus over the period for which comparable *Blue Chip* forecasts are available (1982-1993).

CBO's and the Administration's longer-term (five-year) projections of average growth in real output were generally optimistic, but CBO's errors were much smaller than the Administration's. For the longer-term projections of real gross national product, CBO's errors were only slightly larger on average than those in its short-term forecasts of real output. Again, CBO's projections were about as accurate as those of the *Blue Chip* consensus over the comparable period (1979-1990).

The differences among the three forecasts, however, are not large enough to be statistically significant. The small number of forecasts available for the analysis makes it difficult to distinguish meaningful differences in their performance from differences that might arise randomly. Thus, the statistics presented here are not reliable indicators of the future performance of any of the forecasters.

Sources of Data for the Evaluation

Evaluating CBO's forecasting record requires compiling the basic historical and forecast data for growth in real output, CPI inflation, and interest rates. Although each of those series has an important influence on budget projections, an accurate forecast of the two-year average growth in real output is the most critical economic factor in accurately estimating the deficit for the upcoming budget year. Two-year average forecasts published in early 1994 and 1995 could not be included in this evaluation because historical values for 1995 and 1996 are, of course, not yet available.[1] The data were therefore compiled using forecasts published early in the years 1976 through 1993.

Selection of Historical Data

Which historical data to use for the evaluation was dictated by the availability of actual data and the nature of the individual forecasts examined. Although CBO, the Administration, and *Blue Chip* all published the same measure for real output growth, selecting a historical series was difficult because of periodic benchmark revisions to the actual data.[2] By comparison, not all of the forecasters published the same measures for CPI inflation and interest rates, but the selection of historical data for those series was clear-cut.

Real Output Growth. Historical two-year averages of growth in real output were developed from calendar year averages of the quarterly chain-type annual-weighted indexes of real gross national product (GNP) and real gross domestic product (GDP) published by the Bureau of Economic Analysis (BEA). The fact that several real GNP and GDP series were discontinued because of periodic benchmark revisions meant that they were unsuitable historical series.

For example, during the 1976-1985 period, the three forecasters published estimates for a measure of growth in real GNP that was based on 1972 prices, the measure published by BEA at the time. In late 1985, however, BEA discontinued this 1972-dollar series and began to publish GNP on a 1982-dollar basis. As a result, an official series of values for GNP growth in 1972 dollars is not available for years after 1984; thus, actual two-year average growth rates are not available to compare with the forecasts made in early 1984 and 1985. From 1986 to 1991, forecasters published estimates of growth in real GNP based on 1982 prices. BEA revised the benchmark again in the second half of 1991; it discontinued the 1982-dollar GNP and began to publish GNP on a 1987-dollar basis.[3] Consequently, the historical annual series for 1982-dollar GNP is available only through 1990, and actual two-year average growth rates are not available for the forecasts made in early 1990 and 1991.

By periodically updating the series to reflect more recent prices, BEA's benchmark revisions yield a measure of real output that is more relevant for analyzing contemporary movements in real growth. But the process makes it difficult to evaluate forecasts of real growth produced over a period of years for series that are subsequently discontinued. The difficulties presented by periodic revisions of the data are avoided here by using one of BEA's alternative measures of real GNP and GDP, the chain-type annual-weighted index. This index is discussed in Appendix B.

CPI Inflation. Two-year averages of inflation in the consumer price index were calculated from calendar year averages of monthly data published by the Bureau of Labor Statistics. Before 1978, the bureau published only one consumer price index series, known today as the CPI-W (the price index for urban

1. The Clinton Administration adopted CBO's economic assumptions as the basis for its budget in early 1993. As a result, the errors for the early 1993 forecast are virtually the same for CBO and the Administration.

2. Before 1992, CBO, the Office of Management and Budget, and *Blue Chip* used gross national product to measure output. However, beginning in early 1992, all three forecasters began to publish forecasts and projections of gross domestic product instead.

3. With the 1992 benchmark revision, GDP replaced GNP as the central measure of national output.

wage earners and clerical workers). In January 1978, however, it began to publish a second, broader consumer price index series, the CPI-U (the price index for all urban consumers). CBO's comparison of forecasts used both series.

Until 1992, the Administration published its forecasts for the CPI-W, the measure used to index most of the federal government's expenditures for entitlement programs. By contrast, for all but four of its forecasts since 1979 (1986 through 1989), CBO based its inflation forecast on the CPI-U, a more widely cited measure of inflation and the one now used to index federal income tax brackets. The *Blue Chip* consensus has always published its forecast of the CPI-U. Although both the CPI-U and CPI-W may be forecast with the same relative ease, and annual fluctuations in the two series are virtually indistinguishable, they differ in some years; for that reason, CBO used historical data for both series to evaluate the alternative forecast records.

Interest Rates. Two-year averages of nominal short- and long-term interest rates were developed from calendar year averages of monthly data published by the Board of Governors of the Federal Reserve System.

The forecasts of short-term interest rates were compared using historical values for two measures of the interest rate on three-month Treasury bills: the new-issue rate and the secondary-market rate. The Administration forecasts the new-issue rate, which corresponds to the price of three-month bills auctioned by the Treasury Department--that is, it reflects the interest actually paid on that debt. CBO forecasts the secondary-market rate, which corresponds to the price of the three-month bills traded outside the Treasury auctions. Because such transactions occur continually in markets that involve many more traders than do Treasury auctions, the secondary-market rate provides an updated evaluation by the wider financial community of the short-term federal debt. *Blue Chip* has alternated between these two rates: it published the new-issue rate from 1982 to 1985, switched to the secondary-market rate during the 1986-1991 period, and then returned to the new-issue rate in 1992. Clearly, there is no reason to expect the two rates to differ persistently; indeed, the differences between their calendar year averages are minuscule.

The various forecasts of long-term interest rates were likewise compared using historical values for two measures of long-term rates: the 10-year Treasury note rate and Moody's Aaa corporate bond rate. A comparison of forecasts is only possible beginning in 1984 because not all of the forecasters published projections of long-term interest rates before that year. For forecasts made in early 1984 and 1985, CBO projected the Aaa corporate bond rate. Beginning with its early 1986 forecast, however, CBO switched to the 10-year Treasury note rate. The Administration has always published its projection for the 10-year Treasury note rate, but *Blue Chip* has published the Aaa corporate bond rate.

Separate historical values for real short-term interest rates were calculated using the nominal short-term interest rate and inflation rate appropriate for each forecaster. In each case, the two-year average nominal interest rate was discounted by the two-year average rate of inflation. The resulting real short-term interest rates were very similar. Since there is no agreed-upon method for calculating real long-term interest rates, they were not included in the evaluation.

Sources of Forecast Data

The evaluation used calendar year forecasts and projections, which CBO has published early each year since 1976, timed to coincide with the publication of the Administration's budget proposals. The Administration's forecasts were taken from the Administration's budget in all but one case: the forecast made in early 1981 came from the Reagan Administration's revisions to President Carter's last budget. The corresponding CBO forecast was taken from CBO's published analysis of President Reagan's budget proposals. That forecast did not include the economic effects of the new Administration's fiscal policy proposals.

The average two-year forecasts of the *Blue Chip* consensus survey were taken from those published in the same month as CBO's forecasts. Because the *Blue Chip* consensus did not begin publishing its two-year forecasts until the middle of 1981, the first consensus forecast available for use in this comparison was published in early 1982. Average five-year

projections, however, are published by *Blue Chip* only two or three times a year. All but one of its five-year projections used in this evaluation were published in March; the 1980-1984 projection was published in May.

Measuring Forecast Performance

Following earlier studies of economic forecasts, this evaluation of CBO's forecasts focused on two aspects of their performance: statistical bias and accuracy.

Bias

The statistical bias of a forecast is the extent to which the forecast can be expected to differ from what actually occurs. CBO's evaluation used the *mean error* to measure statistical bias. That statistic--the arithmetic average of all the forecast errors--is the simplest and most widely used measure of forecast bias. Because the mean error is a simple average, however, underestimates and overestimates offset each other in calculating it. As a result, the mean error imperfectly measures the quality of a forecast--a small mean error would result either if all the errors were small or if all the errors were large but the overestimates and underestimates happened to balance out.

Accuracy

The accuracy of a forecast is the degree to which forecast values are narrowly dispersed around actual outcomes. Measures of accuracy more clearly reflect the usual meaning of forecast performance than does the mean error. This evaluation used two measures of accuracy. The *mean absolute error*--the average of the forecast errors without regard to arithmetic sign--indicates the average distance between forecasts and actual values without regard to whether individual forecasts are overestimates or underestimates. The *root mean square error*--calculated by first squaring all the errors, then taking the square root of the arithmetic average of the squared errors--also shows the size of the error without regard to sign, but it gives greater weight to larger errors.

Measurement Issues

These three statistics do not exhaust the available supply of measures of forecast performance. For example, to test for statistical bias in CBO's forecasts, previous studies have used measures that are slightly more elaborate than the mean error. Those studies have generally concluded, as does this evaluation, that CBO's short-term economic forecasts do not contain a statistically significant bias.[4]

In addition, a number of methods have been developed to evaluate a forecast's efficiency. Efficiency indicates the extent to which a particular forecast could have been improved by using additional information that was at the forecaster's disposal when the forecast was made.[5] The *Blue Chip* consensus forecasts represent a wide variety of economic forecasters and thus reflect a broader blend of sources and methods than can be expected from any single forecaster. The use of the *Blue Chip* forecasts in this evaluation can therefore be interpreted as a proxy for an efficient forecast. The fact that CBO's forecasts are about as accurate as *Blue Chip*'s is a rough indication of their efficiency.

4. Another approach to testing a forecast for bias is based on linear regression analysis of actual and forecast values. For details of that method, see J. Mincer and V. Zarnowitz, "The Evaluation of Economic Forecasts," in Mincer, ed., *Economic Forecasts and Expectations* (New York: National Bureau of Economic Research, 1969). That approach is not used here because of the small sample size. However, previous studies that have used it to evaluate the short-term forecasts of CBO and the Administration have not been able to reject the hypothesis that those forecasts are unbiased. See, for example, M.T. Belongia, "Are Economic Forecasts by Government Agencies Biased? Accurate?" *Review*, Federal Reserve Bank of St. Louis, vol. 70, no. 6 (November/December 1988), pp. 15-23.

5. For studies that have examined the relative efficiency of CBO's forecasts, see Belongia, "Are Economic Forecasts by Government Agencies Biased?"; and S.M. Miller, "Forecasting Federal Budget Deficits: How Reliable Are U.S. Congressional Budget Office Projections?" *Applied Economics*, vol. 23 (December 1991), pp. 1789-1799. Although both of the studies identify series that might have been used to make CBO's forecasts more accurate, they rely on statistics that assume a larger sample than is available. Moreover, although statistical tests can identify sources of inefficiency in a forecast after the fact, they generally do not indicate how such information can be used to improve forecasts when they are made.

More elaborate measures, however, are not necessarily reliable indicators when the sample of observations is small, such as the 18 observations that make up the sample of CBO's two-year forecasts. Small samples present three main types of problems for evaluating forecasts, including forecasts based on the simple measures presented here. First, small samples reduce the reliability of statistical tests that are based on the assumption that the underlying population of forecast errors follows a normal distribution. The more elaborate tests of forecast performance all make such an assumption about the hypothetical ideal forecast with which the actual forecasts are compared. Second, in small samples, individual forecast errors have a relatively large weight in the calculation of summary measures. The mean error, for example, can fluctuate in arithmetic sign when a single observation is added to a small sample. Third, the small sample means that CBO's forecast history cannot be used in a statistically reliable way to indicate either the direction or the size of future forecasting errors.

Apart from the general caution that should attend statistical conclusions based on small samples, there are several other reasons to view this evaluation of CBO's forecasts with particular caution. First, the procedures and purposes of CBO's and the Administration's forecasts have changed over the past 19 years and may change again in the future. For example, in the late 1970s, CBO characterized its long-term projections as a goal for the economy, whereas it now considers its projections to be what will prevail on average if the economy continues to reflect historical trends. Second, an institution's forecasting track record may not foretell its future abilities because of changes in personnel or methods. Finally, forecast errors increase when the economy is more volatile. All three forecasters made exceptionally large errors when forecasting for periods that included turning points in the business cycle.

CBO's Forecasting Record

This analysis evaluated the Congressional Budget Office's forecasts over two-year and five-year periods. The period of most interest for forecasters of the budget is two years. Because the Administration's and CBO's winter budget publications focus on the budget projection for the fiscal year beginning in the following October, an economic forecast that is accurate not only for the months leading up to the budget year but also for the budget year itself will provide the basis for a more accurate forecast of the deficit. A five-year horizon is used to examine the accuracy of longer-term projections of growth in real output.

Short-Term Forecasts

Historically, CBO's two-year forecasts are slightly more accurate than the Administration's and suffer from slightly less statistical bias. In most cases, however, the differences are slim. Furthermore, CBO's forecasts are about as accurate as *Blue Chip*'s average forecasts.

An accurate forecast of two-year growth in real output is the most important factor in minimizing errors in forecasting the deficit for the budget year. Accurate forecasts of nominal output, inflation, and nominal interest rates are less important for forecasting deficits now than they were in the late 1970s and early 1980s. The reason is that given current law and the level of the national debt, inflation increases both revenues and outlays by similar amounts. Revenues increase with inflation because taxes are levied on nominal incomes. Outlays increase because various entitlement programs are indexed to inflation and because nominal interest rates tend to increase with inflation, which in turn raises the cost of servicing the federal debt.[6]

Real Output Growth. For the two-year forecasts made between 1976 and 1993, CBO had a slightly better record than the Administration in forecasting growth in real output (see Table A-1). On average, both CBO's and the Administration's forecasts tended to be overestimates. CBO was closer to the true value in eight of the 18 forecasts made between 1976

6. Rules of thumb for estimating the effect on the deficit of changes in various macroeconomic variables are given in Congressional Budget Office, *The Economic and Budget Outlook: Fiscal Years 1996-2000* (January 1995), pp. 77-81.

and 1993, the Administration was closer in six periods, and the two forecasters had identical errors in four periods. CBO's forecasts of real growth during the 1982-1993 period were, on average, about as accurate as those of the *Blue Chip* consensus.

Forecast errors tend to be larger when the economy is more unstable. That tendency can be clearly seen in the forecasts of real GNP growth by comparing the large errors for 1979 through 1983--when the economy went through its most turbulent recessionary period of the postwar era--with the smaller errors recorded for later years. Similarly, the recent business cycle accounts for the large errors in the forecasts made in 1989 through 1991; during that period, CBO's errors were only slightly larger than those of the *Blue Chip* consensus.

CPI Inflation. The records for forecasting the average annual growth in the consumer price index over a two-year horizon were very similar (see Table A-2). Both CBO and the Administration underestimated future inflation in their forecasts for 1977 through 1980, and both tended to overestimate it in their forecasts for 1981 through 1986. The average measures of bias and accuracy were virtually the same for CBO and the Administration. CBO was closer to the true value in six of the 18 periods, the Administration was closer in eight periods, and the two forecasters had identical errors in four periods. For the 1982-1993 period, CBO's forecasts of inflation were about as accurate as those of both the Administration and *Blue Chip*.

Nominal Interest Rates. For the 1976-1993 forecasts, CBO's record was about as accurate as the Administration's for nominal short-term interest rates over a two-year horizon (see Table A-3). On average, the Administration tended to underestimate nominal short-term interest rates; CBO's mean error was zero over this period. CBO was closer to the true value in eight of the 18 periods, the Administration was closer in nine periods, and the two forecasters had identical errors in one period. However, for the 1982-1993 period, the mean absolute error of CBO's forecasts was slightly above those of the Administration and *Blue Chip*.

For the 1984-1993 forecasts of long-term interest rates, CBO did significantly better than the Administration (see Table A-4). The Administration tended to underestimate rates, and its mean error was larger than CBO's. In addition, the Administration's forecasts had a larger mean absolute error and root mean square error. CBO was closer to the true value in six of the 10 periods, the Administration was closer in three periods, and the two forecasters had identical errors in one period.

CBO's forecasts of long-term interest rates were about as accurate as those of the *Blue Chip* consensus. Both CBO and *Blue Chip* tended to overestimate long-term rates. CBO had a mean error of 0.3 percentage points compared with 0.4 percentage points for *Blue Chip*.

Real Short-Term Interest Rates. For the forecasts made in 1976 through 1993, CBO had a slight edge over the Administration in estimating real short-term interest rates (see Table A-5). Again, the Administration was more likely than CBO to underestimate interest rates, and its mean error was greater. CBO and the Administration recorded similar mean absolute and root mean square errors. CBO's forecasts were closer to the actual value in 10 of the 18 periods, the Administration's were closer in seven, and the two had identical errors in one period. For forecasts made between 1982 and 1993, CBO's errors were generally similar in both direction and magnitude to those of the *Blue Chip* consensus.

Longer-Term Projections

In projecting real GNP growth for the more distant future, measured here as five years ahead, the Administration's errors were larger than CBO's (see Table A-6). Although this comparative advantage for CBO does not directly affect the estimates of the deficit for the budget year, accuracy in the longer term is obviously important for budgetary planning over several years. Neither the Administration nor CBO, however, considers its projections to be its best guess about the year-to-year course of the economy. The Administration's projections each year are based on the adoption of the President's budget as submitted, and for most years CBO has considered its projections an indication of the average future performance of the economy if major historical trends con-

tinue. Neither institution attempts to anticipate cyclical fluctuations in the projection period.

CBO's projections of longer-term growth in real GNP were closer than the Administration's to the actual value in 12 of the 15 periods. The Administration's projections showed an upward bias of 1.4 percentage points compared with an upward bias of 1.0 percentage point for CBO. Those biases occurred largely because the projections made in early 1976 through 1979, which CBO and the Administration presented as target rates of growth, did not incorporate the recessions of 1980 and 1982. Through the subsequent years of expansion until the most recent recession, the upward bias was much smaller for the Administration's projections and smaller yet for CBO's.

The size of the root mean square errors for the entire period for CBO and, to a lesser extent, the Administration also resulted largely from errors in projections made during the first four years. CBO had a definite edge in the projections made in January 1980 through 1982 and a lesser edge in later years. Again, CBO's projections were about as accurate as those of the *Blue Chip* consensus over the comparable period.

Table A-1.
Comparison of CBO, Administration, and *Blue Chip* Forecasts of Two-Year Average Growth Rates for Real Output (By calendar year, errors in percentage points)

	Actual				CBO		Administration		*Blue Chip*	
	1972 Dollars	1982 Dollars	1987 Dollars	Chain-type Annual-Weighted Index	Forecast	Error	Forecast	Error	Forecast	Error
GNP										
1976-1977	6.7	4.8	4.8	5.2	6.2	0.9	5.9	0.7	a	a
1977-1978	5.2	5.0	4.7	5.1	5.5	0.4	5.1	0.1	a	a
1978-1979	3.9	3.9	3.8	4.2	4.7	0.6	4.7	0.6	a	a
1979-1980	1.3	1.1	1.1	1.4	2.7	1.3	2.9	1.5	a	a
1980-1981	1.1	0.9	0.5	1.0	0.5	-0.5	0.5	-0.5	a	a
1981-1982	0.2	-0.3	-0.4	0	2.1	2.2	2.6	2.7	a	a
1982-1983	0.7	0.5	0.7	0.6	2.1	1.5	2.7	2.0	2.0	1.4
1983-1984	5.2	5.2	4.9	5.2	3.4	-1.8	2.6	-2.6	3.5	-1.7
1984-1985	b	5.1	4.4	4.8	4.7	-0.1	4.7	-0.1	4.3	-0.5
1985-1986	b	3.0	2.8	2.8	3.3	0.5	3.9	1.1	3.2	0.4
1986-1987	b	3.1	2.9	2.9	3.1	0.3	3.7	0.8	3.0	0.1
1987-1988	b	3.9	3.5	3.5	2.9	-0.6	3.3	-0.2	2.8	-0.6
1988-1989	b	3.5	3.3	3.3	2.4	-0.9	3.0	-0.3	2.1	-1.2
1989-1990	b	1.7	2.0	2.0	2.5	0.5	3.2	1.2	2.2	0.2
1990-1991	b	c	0.3	0.3	2.0	1.8	2.8	2.5	1.9	1.7
1991-1992	b	c	0.7	0.6	1.6	1.1	1.4	0.8	1.2	0.6
GDP[d]										
1992-1993	b	c	2.7	2.3	2.6	0.3	2.2	-0.1	2.3	0
1993-1994	b	c	3.6	3.0	2.9	-0.1	2.9	-0.1	3.0	0
Statistics for 1976-1993										
Mean error	*	*	*	*	*	0.4	*	0.6	*	*
Mean absolute error	*	*	*	*	*	0.9	*	1.0	*	*
Root mean square error	*	*	*	*	*	1.1	*	1.3	*	*
Statistics for 1982-1993										
Mean error	*	*	*	*	*	0.2	*	0.4	*	0
Mean absolute error	*	*	*	*	*	0.8	*	1.0	*	0.7
Root mean square error	*	*	*	*	*	1.0	*	1.3	*	0.9

SOURCES: Congressional Budget Office; Office of Management and Budget; Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators*; Department of Commerce, Bureau of Economic Analysis.

NOTES: Actual values are the two-year growth rates for real gross national product (GNP) and gross domestic product (GDP) last reported by the Bureau of Economic Analysis, not the first reported values. Forecast values are for the average annual growth of real GNP or GDP over the two-year period. The forecasts were issued in the first quarter of the initial year of the period or in December of the preceding year. Errors are forecast values minus actual values; thus, a positive error is an overestimate. The chain-type annual-weighted index of actual GNP or GDP was used in calculating the errors.

* = not applicable.

a. Two-year forecasts for the *Blue Chip* consensus were not available until 1982.

b. Data for 1972-dollar GNP and GDP are available only through the third quarter of 1985.

c. Data for 1982-dollar GNP and GDP are available only through the third quarter of 1991.

d. With the 1992 benchmark revision, GDP replaced GNP as the central measure of national output.

Table A-2.
Comparison of CBO, Administration, and *Blue Chip* Forecasts of Two-Year Average Inflation Rates in the Consumer Price Index (By calendar year, errors in percentage points)

	Actual		CBO		Administration		*Blue Chip*	
	CPI-U	CPI-W	Forecast	Error	Forecast	Error	Forecast	Error
1976-1977	6.1	6.1	7.1	1.0	6.1	0	a	a
1977-1978	7.0	7.0	4.9	-2.1	5.2	-1.8	a	a
1978-1979	9.4	9.5	5.8	-3.7	6.0	-3.5	a	a
1979-1980	12.4	12.5	8.1	-4.3	7.4	-5.0	a	a
1980-1981	11.9	11.9	10.1	-1.8	10.5	-1.4	a	a
1981-1982	8.2	8.1	10.4	2.1	9.7	1.6	a	a
1982-1983	4.6	4.5	7.2	2.6	6.6	2.1	7.2	2.6
1983-1984	3.8	3.3	4.7	1.0	4.7	1.5	4.9	1.1
1984-1985	3.9	3.5	4.9	1.0	4.5	1.0	5.2	1.3
1985-1986	2.7	2.5	4.1	1.4	4.2	1.7	4.3	1.6
1986-1987	2.8	2.6	3.8	1.2	3.8	1.2	3.8	1.0
1987-1988	3.9	3.8	3.9	0.1	3.3	-0.5	3.6	-0.2
1988-1989	4.4	4.4	4.7	0.3	4.2	-0.2	4.3	-0.1
1989-1990	5.1	5.0	4.9	-0.1	3.7	-1.3	4.7	-0.4
1990-1991	4.8	4.6	4.1	-0.7	3.9	-0.7	4.1	-0.7
1991-1992	3.6	3.5	4.2	0.6	4.6	1.1	4.4	0.8
1992-1993	3.0	2.9	3.4	0.5	3.1	0.2	3.5	0.5
1993-1994	2.8	2.7	2.8	0.1	2.8	0.1	3.3	0.6
Statistics for 1976-1993								
Mean error	*	*	*	-0.1	*	-0.2	*	*
Mean absolute error	*	*	*	1.4	*	1.4	*	*
Root mean square error	*	*	*	1.8	*	1.8	*	*
Statistics for 1982-1993								
Mean error	*	*	*	0.7	*	0.5	*	0.7
Mean absolute error	*	*	*	0.8	*	1.0	*	0.9
Root mean square error	*	*	*	1.0	*	1.2	*	1.1

SOURCES: Congressional Budget Office; Office of Management and Budget; Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators*; Department of Labor, Bureau of Labor Statistics.

NOTES: Values are for the average annual growth of the consumer price index (CPI) over the two-year period. Before 1978, the Bureau of Labor Statistics published only one consumer price index series, known today as the CPI-W (the price index for urban wage earners and clerical workers). In January 1978, however, the bureau began to publish a second, broader consumer price index series, the CPI-U (the price index for all urban consumers). For most years since 1979, CBO forecast the CPI-U; from 1986 through 1989, CBO forecast the CPI-W. The Administration forecast the CPI-W until 1992, when it switched to the CPI-U. *Blue Chip* forecast the CPI-U for the entire period. The forecasts were issued in the first quarter of the initial year of the period or in December of the preceding year. Errors are forecast values minus actual values; thus, a positive error is an overestimate.

* = not applicable.

a. Two-year forecasts for the *Blue Chip* consensus were not available until 1982.

Table A-3.
Comparison of CBO, Administration, and *Blue Chip* Forecasts of Two-Year Average Interest Rates on Three-Month Treasury Bills (By calendar year, errors in percentage points)

	Actual		CBO		Administration		*Blue Chip*	
	New Issue	Secondary Market	Forecast	Error	Forecast	Error	Forecast	Error
1976-1977	5.1	5.1	6.2	1.1	5.5	0.4	a	a
1977-1978	6.2	6.2	6.4	0.2	4.4	-1.8	a	a
1978-1979	8.6	8.6	6.0	-2.6	6.1	-2.5	a	a
1979-1980	10.8	10.7	8.3	-2.4	8.2	-2.6	a	a
1980-1981	12.8	12.7	9.5	-3.2	9.7	-3.1	a	a
1981-1982	12.4	12.3	13.2	0.9	10.0	-2.4	a	a
1982-1983	9.7	9.6	12.6	3.0	11.1	1.4	11.3	1.6
1983-1984	9.1	9.1	7.1	-2.0	7.9	-1.1	7.9	-1.2
1984-1985	8.5	8.5	8.7	0.3	8.1	-0.4	9.1	0.5
1985-1986	6.7	6.7	8.5	1.8	8.0	1.3	8.5	1.8
1986-1987	5.9	5.9	6.7	0.9	6.9	1.0	7.1	1.2
1987-1988	6.2	6.2	5.6	-0.6	5.5	-0.7	5.7	-0.5
1988-1989	7.4	7.4	6.4	-0.9	5.2	-2.1	6.1	-1.2
1989-1990	7.8	7.8	7.5	-0.3	5.9	-1.9	7.5	-0.3
1990-1991	6.5	6.4	7.0	0.6	6.0	-0.4	7.1	0.7
1991-1992	4.4	4.4	6.8	2.4	6.2	1.8	6.4	2.0
1992-1993	3.2	3.2	4.7	1.5	4.5	1.3	4.6	1.4
1993-1994	3.6	3.6	3.4	-0.2	3.4	-0.2	3.8	0.2
Statistics for 1976-1993								
Mean error	*	*	*	0	*	-0.7	*	*
Mean absolute error	*	*	*	1.4	*	1.5	*	*
Root mean square error	*	*	*	1.7	*	1.7	*	*
Statistics for 1982-1993								
Mean error	*	*	*	0.5	*	0	*	0.5
Mean absolute error	*	*	*	1.2	*	1.1	*	1.1
Root mean square error	*	*	*	1.5	*	1.3	*	1.2

SOURCES: Congressional Budget Office; Office of Management and Budget; Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators*; Federal Reserve Board.

NOTES: Values are for the geometric averages of the three-month Treasury bill rates for the two-year period. The actual values are published by the Federal Reserve Board as the rate on new issues (reported on a bank-discount basis) and the secondary-market rate. CBO forecast the secondary-market rate; the Administration forecast the new-issue rate. *Blue Chip* alternated between the two rates, forecasting the new-issue rate from 1982 to 1985, the secondary-market rate from 1986 to 1991, and the new-issue rate again beginning in 1992. The forecasts were issued in the first quarter of the initial year of the period or in December of the preceding year. Errors are forecast values minus actual values; thus, a positive error is an overestimate.

* = not applicable.

a. Two-year forecasts for the *Blue Chip* consensus were not available until 1982.

Table A-4.
Comparison of CBO, Administration, and *Blue Chip* Forecasts of Two-Year Average Long-Term Interest Rates (By calendar year, errors in percentage points)

	Actual		CBO		Administration		*Blue Chip*	
	10-Year Note	Corporate Aaa Bond	Forecast	Error	Forecast	Error	Forecast	Error
1984-1985	11.5	12.0	11.9	-0.1	9.7	-1.8	12.2	0.2
1985-1986	9.1	10.2	11.5	1.3	10.6	1.5	11.8	1.7
1986-1987	8.0	9.2	8.9	0.9	8.7	0.7	9.9	0.8
1987-1988	8.6	9.5	7.2	-1.4	6.6	-2.0	8.7	-0.8
1988-1989	8.7	9.5	9.4	0.7	7.7	-1.0	9.8	0.3
1989-1990	8.5	9.3	9.1	0.6	7.7	-0.8	9.5	0.3
1990-1991	8.2	9.0	7.7	-0.5	7.2	-1.0	8.7	-0.3
1991-1992	7.4	8.5	7.8	0.4	7.3	-0.1	8.7	0.3
1992-1993	6.4	7.7	7.1	0.7	6.9	0.5	8.4	0.7
1993-1994	6.5	7.6	6.6	0.2	6.6	0.2	8.2	0.6
Statistics for 1984-1993								
Mean error	*	*	*	0.3	*	-0.4	*	0.4
Mean absolute error	*	*	*	0.7	*	0.9	*	0.6
Root mean square error	*	*	*	0.8	*	1.1	*	0.7

SOURCES: Congressional Budget Office; Office of Management and Budget; Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators*; Federal Reserve Board.

NOTES: Actual values are for the geometric averages of the 10-year Treasury note rates or Moody's corporate Aaa bond rates for the two-year period as reported by the Federal Reserve Board. CBO forecast the 10-year Treasury note rate in all years except 1984 and 1985. The Administration forecast the 10-year note rate, but *Blue Chip* forecast the corporate Aaa bond rate. Data are only available beginning in 1984 since not all of the forecasters published long-term rate projections before then. The forecasts were issued in the first quarter of the initial year of the period or in December of the preceding year. Errors are forecast values minus actual values; thus, a positive error is an overestimate.

* = not applicable.

Table A-5.
Comparison of CBO, Administration, and *Blue Chip* Forecasts of Two-Year Average Real Interest Rates on Three-Month Treasury Bills (By calendar year, errors in percentage points)

	Actual				CBO		Administration		*Blue Chip*	
	New Issue		Secondary Market							
	CPI-U	CPI-W	CPI-U	CPI-W	Forecast	Error	Forecast	Error	Forecast	Error
1976-1977	-0.9	-0.9	-0.9	-0.9	-0.8	0.1	-0.6	0.3	a	a
1977-1978	-0.8	-0.7	-0.8	-0.7	1.5	2.2	-0.8	-0.1	a	a
1978-1979	-0.7	-0.8	-0.7	-0.8	0.2	1.0	0.1	0.9	a	a
1979-1980	-1.4	-1.5	-1.4	-1.5	0.2	1.7	0.7	2.2	a	a
1980-1981	0.8	0.9	0.7	0.8	-0.5	-1.2	-0.7	-1.6	a	a
1981-1982	3.8	4.0	3.7	3.9	2.6	-1.2	0.3	-3.7	a	a
1982-1983	4.8	4.9	4.7	4.9	5.0	0.3	4.2	-0.8	3.8	-1.0
1983-1984	5.1	5.7	5.1	5.6	2.2	-2.9	3.1	-2.6	2.9	-2.3
1984-1985	4.4	4.9	4.4	4.8	3.6	-0.8	3.4	-1.4	3.6	-0.8
1985-1986	3.9	4.1	3.9	4.1	4.2	0.3	3.6	-0.4	4.0	0.1
1986-1987	3.0	3.2	3.0	3.2	2.8	-0.4	3.0	-0.3	3.2	0.2
1987-1988	2.3	2.4	2.3	2.3	1.7	-0.6	2.1	-0.2	2.0	-0.3
1988-1989	2.8	2.9	2.8	2.9	1.7	-1.2	1.0	-1.9	1.8	-1.1
1989-1990	2.6	2.6	2.6	2.6	2.5	-0.2	2.1	-0.6	2.7	0.2
1990-1991	1.6	1.7	1.5	1.7	2.8	1.2	2.0	0.3	2.9	1.3
1991-1992	0.8	0.9	0.7	0.9	2.5	1.8	1.5	0.6	1.9	1.2
1992-1993	0.2	0.4	0.2	0.3	1.3	1.0	1.3	1.1	1.1	0.8
1993-1994	0.8	1.0	0.8	0.9	0.5	-0.3	0.6	-0.3	0.5	-0.4
Statistics for 1976-1993										
Mean error	*	*	*	*	*	0.1	*	-0.5	*	*
Mean absolute error	*	*	*	*	*	1.1	*	1.1	*	*
Root mean square error	*	*	*	*	*	1.3	*	1.4	*	*
Statistics for 1982-1993										
Mean error	*	*	*	*	*	-0.1	*	-0.5	*	-0.2
Mean absolute error	*	*	*	*	*	0.9	*	0.9	*	0.8
Root mean square error	*	*	*	*	*	1.2	*	1.1	*	1.0

SOURCES: Congressional Budget Office; Office of Management and Budget; Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators*; Department of Labor, Bureau of Labor Statistics; Federal Reserve Board.

NOTES: Values are for the appropriate three-month Treasury bill rate discounted by the respective forecast for inflation as measured by the change in the consumer price index. The forecasts were issued in the first quarter of the initial year of the period or in December of the preceding year. Errors are forecast values minus actual values; thus, a positive error is an overestimate.

CPI-U = consumer price index for all urban consumers; CPI-W = consumer price index for urban wage earners and clerical workers; * = not applicable.

a. Two-year forecasts for the *Blue Chip* consensus were not available until 1982.

Table A-6.
Comparison of CBO and Administration Projections of Five-Year Average Growth Rates for Real GNP (By calendar year, errors in percentage points)

	Actual				CBO		Administration		*Blue Chip*	
	1972 Dollars	1982 Dollars	1987 Dollars	Chain-type Annual-Weighted Index	Forecast	Error	Forecast	Error	Forecast	Error
1976-1980	4.2	3.4	3.3	3.7	5.7	2.0	6.2	2.5	a	a
1977-1981	3.1	2.8	2.6	3.1	5.3	2.2	5.1	2.1	a	a
1978-1982	1.6	1.4	1.2	1.6	4.8	3.2	4.8	3.2	a	a
1979-1983	1.3	1.0	1.1	1.3	3.8	2.5	3.8	2.5	3.1	1.8
1980-1984	2.1	1.9	1.7	2.0	2.4	0.4	3.0	1.0	2.5	0.5
1981-1985	b	2.6	2.4	2.6	2.8	0.1	3.8	1.1	3.0	0.4
1982-1986	b	2.7	2.6	2.7	3.0	0.2	3.9	1.2	2.7	0
1983-1987	b	4.0	3.7	3.8	3.6	-0.2	3.5	-0.4	3.5	-0.4
1984-1988	b	4.1	3.7	3.9	4.0	0.1	4.3	0.4	3.5	-0.4
1985-1989	b	3.3	3.1	3.1	3.4	0.3	4.0	0.9	3.4	0.3
1986-1990	b	2.8	2.7	2.8	3.3	0.6	3.8	1.0	3.1	0.4
1987-1991	b	c	2.0	2.0	2.9	0.9	3.5	1.4	2.7	0.6
1988-1992	b	c	1.9	1.8	2.6	0.7	3.2	1.4	2.5	0.7
1989-1993	b	c	1.7	1.5	2.3	0.8	3.2	1.7	2.6	1.0
1990-1994	b	c	1.9	1.6	2.3	0.7	3.0	1.3	2.4	0.8
Statistics for 1976-1990										
Mean error	*	*	*	*	*	1.0	*	1.4	*	*
Mean absolute error	*	*	*	*	*	1.0	*	1.5	*	*
Root mean square error	*	*	*	*	*	1.4	*	1.7	*	*
Statistics for 1979-1990										
Mean error	*	*	*	*	*	0.6	*	1.1	*	0.5
Mean absolute error	*	*	*	*	*	0.6	*	1.2	*	0.6
Root mean square error	*	*	*	*	*	0.9	*	1.3	*	0.7

SOURCES: Congressional Budget Office; Office of Management and Budget; Eggert Economic Enterprises, Inc., *Blue Chip Economic Indicators*; Department of Commerce, Bureau of Economic Analysis.

NOTES: Actual values are for the five-year growth rates for real gross national product (GNP) last reported by the Bureau of Economic Analysis, not the first reported values. Projected values are for the average growth of real GNP over the five-year period. The majority of the projections were issued in the first quarter of the initial year of the period or in December of the preceding year. Errors are projected values minus actual values; thus, a positive error is an overestimate. The chain-type annual-weighted index of actual GNP was used in calculating the errors.

* = not applicable.

a. Five-year forecasts for the *Blue Chip* consensus were not available until 1979.

b. Data for 1972-dollar GNP are available only through the third quarter of 1985.

c. Data for 1982-dollar GNP are available only through the third quarter of 1991.

Appendix B

A More Accurate Measure of Real Economic Growth

Fixed-weighted measures of output--gross domestic product (GDP) or gross national product--have been the primary measure of inflation-adjusted, or real, economic activity throughout the postwar period. As part of its quinquennial benchmark revision scheduled for this December, however, the Bureau of Economic Analysis (BEA) will switch to a chain-type annual-weighted measure of real GDP and its components. The revision will alter analysts' view of the trend in real economic growth and price changes, but it should not, in principle, affect perceptions of trends in nominal GDP. BEA will also change the base year used in reporting the traditional fixed-weighted measure of real GDP.[1]

Calculating nominal, or current-dollar, GDP is fairly straightforward, but the best method for calculating real economic activity is less clear. Nominal GDP is calculated by simply adding up the dollar values of the various components of final demand--that is, the value of all the goods and services that people, businesses, and governments produce. Real GDP, however, can be calculated in several ways, each of which has advantages and disadvantages.

1. For details of the revision and the chain-type annual-weighted index, see J. Steven Landefeld and Robert P. Parker, "Preview of the Comprehensive Revision of the National Income and Product Accounts: BEA's New Featured Measures of Output and Prices," *Survey of Current Business* (July 1995), pp. 31-38; and Allan H. Young, "Alternative Measures of Change in Real Output and Prices," *Survey of Current Business* (April 1992), pp. 32-48.

Fixed-Weighted GDP

The fixed-weighted measure calculates real GDP using the prices of a specific year, called the base year. The current year's dollar value of each component of final demand is expressed in terms of its price in the base year, and the sum of the value of the components equals real GDP. The base year, which is currently 1987, is updated periodically--in recent decades, about every five years--and all of the historical data are revised at that time. Such a revision will occur in December when BEA shifts the base year to 1992.

The fixed-weighted measure has several advantages: it is easy to calculate; its interpretation is straightforward in that it uses the prices of one specific year (so it can be called "1987-dollar GDP," for example); and it permits analysts to calculate the contribution of each component of final demand to growth in GDP. The drawback of the fixed-weighted measure is that it does not accurately describe real economic activity when prices change a lot relative to those in the base year. For example, computers now cost only about 35 percent of what they cost in 1987 (after adjusting for changes in quality), but the price of food has increased 30 percent. Valuing currently produced computers at their high 1987 prices while valuing food at much lower 1987 prices greatly overstates the current importance of computer output relative to food output.

The problem of inappropriate weights becomes serious when the base year is too distant. Changes in relative prices therefore require periodic rebasing of the GDP data. During the postwar years, the base year has been changed a number of times. The years 1947, 1954, 1958, 1972, 1982, and 1987 have been used as base years.

The periodic rebasing of the fixed-weighted measure of real GDP causes significant revisions of real growth for previous decades. Each time a new base year is instituted and the data are revised back to 1929, the real growth rate of previous decades is reduced. For example, the average annual growth rate from 1972 to 1984 was reported to be 2.7 percent in 1982 dollars, but switching to 1987 dollars reduced measured average growth by 0.4 percentage points a year. Rebasing tends to reduce measured growth for the years before the new base year because it puts a smaller weight on the components of demand that have increased the least in price, and those sectors tend to be the fastest growing.

The repeated revisions also make most recessions appear milder than first reported. The decline in output during 1974, for example, was reported to be 1.4 percent using the 1972-dollar measure but only 0.6 percent using the 1987-dollar measure.

Chain-type Annual-Weighted GDP

Starting with its December revisions, the Bureau of Economic Analysis intends to feature the chain-type annual-weighted measure of GDP. The chain-type measure of the growth of real economic activity is calculated as the geometric average (the square root of the product) of two output indexes. One of these indexes values the change in output from the preceding year at that year's prices and the other does the reverse, valuing the change in output at the current year's prices. When the two output measures are averaged, therefore, both sets of prices play a role. The growth rates so calculated are then linked together in a composite chain index. For presentation purposes, BEA will set the composite index equal to the nominal value of GDP in 1992.

The pros and cons of the chain-type measure are just the oppsoite of those of the fixed-weighted measure. The chain-type index yields a more accurate measure of real economic activity because it uses prices relevant to the period being considered, and it also reduces the need to revise historical data. Its drawbacks are that it is more difficult to calculate, and the components of real final demand do not sum to real GDP (the mathematics of geometric averages results in a residual component of total GDP growth that cannot be allocated to any category of final demand). BEA, however, will publish estimates of the contributions to growth made by each component of GDP.

An Altered View of Past Economic Growth

The chain-type method of calculating real GDP significantly alters the historical picture of real economic growth. The fixed-weighted procedure, using 1987 prices, is biased downward for the years before 1987 and upward for subsequent years. For example, that measure indicates that real growth averaged 3.1 percent a year between 1959 and 1987, whereas the new measure shows higher annual growth of 3.4 percent. Conversely, real growth between 1990 and 1994 averaged 2.2 percent a year using the current measure but 1.8 percent using the new measure. The overstatement of growth for recent years is particularly large for the last half of 1994 and the first half of this year (see Table B-1).

Growth rates for specific components of GDP can differ even more. Real business fixed investment, for example, grew an average of 5.3 percent a year between 1990 and 1994 using the fixed-weighted measure, compared with 3.3 percent using the chain-type measure.

Although BEA has provided the chain-type measure for a few years, detailed data have not been

readily available and BEA has not highlighted that measure. Consequently, few analysts have investigated the implications of the new measure for forecasting or policy analysis. Forecasts are affected in a number of ways by the interpretation of past events, so the new data, by encouraging reinterpretation of the past, may influence future forecasts. However, the way in which forecasts may be affected, if at all, is not yet clear.

Table B-1.
Comparison of Growth Rates of Real GDP for Recent Quarters

Quarter	Fixed 1987-Weighted Measure	Chain-type Annual-Weighted Measure	Difference
1994:I	3.3	3.2	0.1
1994:II	4.1	4.2	-0.1
1994:III	4.0	3.6	0.4
1994:IV	5.1	4.0	1.1
1995:I	2.7	1.7	1.0
1995:II	0.5	-0.2	0.7

SOURCE: Congressional Budget Office using data from the Department of Commerce, Bureau of Economic Analysis.

Appendix C

Sequestration Update Report for Fiscal Year 1996

The Budget Enforcement Act of 1990 amended the Balanced Budget and Emergency Deficit Control Act of 1985 and the Congressional Budget Act of 1974 to add new enforcement procedures for direct (mandatory) spending, receipts, and discretionary spending for fiscal years 1991 through 1995. The Omnibus Budget Reconciliation Act of 1993 extended the application of the new procedures through 1998. The law requires the Congressional Budget Office (CBO) to issue a sequestration preview report five days before the President's budget submission in January or February, a sequestration update report on August 15, and a final sequestration report 10 days after the end of a session of Congress. Those reports must contain estimates of the following items:

- The discretionary spending limits and any adjustments to them;
- The amount by which direct spending or receipt legislation enacted after the Budget Enforcement Act has increased or decreased the deficit; and
- The amount of any required pay-as-you-go sequestration.

This report to the Congress and the Office of Management and Budget (OMB) provides the information required for the August 15 update of CBO's *Sequestration Preview Report for Fiscal Year 1996*. In addition to updating the information required in this report, the final report that CBO will issue 10 days after the current session of Congress ends must also assess whether a sequestration is required. A sequestration will be triggered if enacted appropriations have exceeded the spending limits for 1996 or direct spending or receipt legislation has increased the total deficit for 1995 and 1996. Based on the levels of spending allowed under the budget resolution adopted earlier this year and on legislative action to date, CBO does not anticipate that any discretionary spending or pay-as-you-go sequestration will be required in 1996.

Discretionary Sequestration Report

The Omnibus Budget Reconciliation Act of 1993 (OBRA-93) established new limits on total discretionary budget authority and outlays for fiscal years 1996 through 1998. But it left in place the existing discretionary spending limits for 1993 through 1995 and the existing enforcement procedures, including specific instructions for adjusting the discretionary limits. The Violent Crime Control and Law Enforcement Act of 1994, enacted in September 1994, excluded spending from the Violent Crime Reduction Trust Fund (VCRTF) from the constraints of the existing caps. It also lowered those caps by the assumed amount of trust fund spending for each year that the caps would be in effect and established separate limits through 1998 on outlays resulting from VCRTF appropriations.

The estimates of the limits on total general-purpose (non-VCRTF) discretionary spending for 1995

through 1998 shown in Table C-1 differ from those in CBO's January 1995 preview report for three reasons. First, the estimates have been revised to reflect differences between the spending limits in CBO's preview report and those specified in OMB's preview report, which was included in the President's budget submission. Second, the limits have been increased to reflect emergency funds made available since OMB issued its preview report. Third, as required by the package of supplemental appropriations and rescissions enacted on July 27 (Public Law 104-19), the limits have been decreased to reflect the effect of that legislation on nonemergency discretionary spending. The limits on the VCRTF are not subject to any adjustment, so they remain as presented in the January report.

Differences Between the Limits in CBO's and OMB's Preview Reports

Amendments made by the Budget Enforcement Act (BEA) require both CBO and OMB to calculate

Table C-1.
CBO Estimates of Discretionary Spending Limits for Fiscal Years 1995 Through 1998 (In millions of dollars)

	1995		1996		1997		1998	
	Budget Authority	Outlays	Budget Authority	Outlays	Budget Authority	Outlays	Budget Authority	Outlays
General-Purpose Spending Limits in CBO's January 1995 Preview Report	517,067	546,438	512,891	546,714	521,234	543,276	523,098	541,128
Adjustments								
Technical differences from OMB's February 1995 preview report	0	1	4,492	2,670	8,682	6,213	12,989	10,474
Emergency 1995 appropriations enacted since OMB's preview report	5,930	1,401	3,275	1,387	0	2,131	0	2,032
Contingent emergency appropriations designated since OMB's preview report	542	197	0	168	0	98	0	54
Reduction required by P.L. 104-19	-15,295	-599	0	-3,149	-55	-2,659	0	-2,168
Total	-8,823	1,000	7,767	1,076	8,627	5,783	12,989	10,392
General-Purpose Spending Limits as of August 15, 1995	508,244	547,438	520,658	547,790	529,861	549,059	536,087	551,520
Violent Crime Reduction Trust Fund Spending Limits	2,423	703	4,287	2,334	5,000	3,936	5,500	4,904
Total Discretionary Spending Limits	510,667	548,141	524,945	550,124	534,861	552,995	541,587	556,424

SOURCE: Congressional Budget Office.

NOTE: OMB = Office of Management and Budget; P.L. = Public Law.

changes to the discretionary spending limits specified in the act. OMB's estimates of the limits are controlling, however, in determining whether enacted appropriations are within the limits or a sequestration is required to eliminate a breach of the limits. CBO's estimates are advisory. In acknowledgement of OMB's statutory role, when CBO calculates changes in the limits for a report, it first adjusts for the differences between the limits in its most recent report and the limits in OMB's most recent report--in effect, using OMB's official estimates as the starting point for the adjustments that CBO is required to make in the new report.

The spending limits for 1995 in CBO's January 1995 preview report were essentially the same as those in OMB's February 1995 preview report: CBO's estimate of the budget authority limit was the same as OMB's, and CBO's estimate of the outlay limit was only $1 million lower than OMB's. That difference merely reflects different assumptions about the rate at which $44 million in emergency appropriations will be spent (the spendout rate); those appropriations were released by the President to fund economic development programs and assistance to victims of natural disasters.

CBO's estimates for the years after 1995, however, were dramatically lower than OMB's. In 1998, CBO's spending caps were lower than OMB's by $13 billion in budget authority and $10.5 billion in outlays.

The principal source of the dramatic difference between CBO's and OMB's projections of the discretionary spending caps is the agencies' different interpretation of the rules governing inflation adjustments. The BEA amendments required that both preview reports include adjustments to the limits to account for differences between actual inflation and inflation estimated at the time the BEA was enacted. For the years before 1995, CBO and OMB agreed that an adjustment equal to the ratio of actual inflation in the previous fiscal year to inflation projected for that year should be applied to the spending limits for all years in which they are in effect.

OMB changed its method of adjusting for inflation in its February 1995 preview report. It based that change on provisions in OBRA-93 that extended the discretionary spending limits through 1998. OMB's adjustments in that report were based on the ratio of OMB's forecast of inflation in 1996, 1997, and 1998 (as reflected in the President's budget submission) to inflation projected for those years when OBRA-93 was enacted. Although CBO believes that OMB's change in method is not warranted by the provisions of OBRA-93 (the conference report on OBRA-93 stated that the legislation "retains, with minor technical and conforming changes, the current law's procedures for periodically adjusting the discretionary spending limits"), CBO will continue to use the OMB-adjusted limits as the starting point for its reports.

In comparison with CBO's adjustments, which reflect only changes that result from the difference between projected and actual inflation for the previous fiscal year (1994), OMB's prospective adjustments steadily increase the maximum budget authority and outlays allowed under the caps. For 1996, OMB's inflation adjustment increases the limits on outlays by $1.8 billion relative to its estimate of the cap in its December 1994 final report, a figure that climbs to $5.1 billion in 1997 and $8.9 billion in 1998. CBO's adjustment, which results from an actual 1994 inflation rate that was lower than expected when the discretionary limits were established, decreases the limits by $571 million in 1996. These reductions reach $1 billion in 1997 and $1.3 billion in 1998. The total effect of the opposite inflation adjustments on the limits in 1998 is approximately $13 billion in budget authority and $10.2 billion in outlays.

The second largest source of variance between the discretionary spending limits contained in CBO's and OMB's preview reports is also a difference in interpretation of the law. OMB's caps reflect outlay increases of $171 million in 1996, $62 million in 1997, and $259 million in 1998 as a result of reestimates of enacted emergency legislation. CBO, however, believes that the Budget Enforcement Act does not allow adjustments for reestimates of the costs of legislation and so does not include any.

Other sources of difference between CBO's and OMB's estimates of the caps include changes in concepts and definitions and differing estimates for the spendout rate of emergency appropriations released

by the President. Approximately $80 million of the $152 million in cumulative changes in outlays categorized as changes in concepts and definitions is the result of different estimates of various provisions of 1995 appropriation acts; the remainder is attributable to a change in the calculation of the subsidy cost of loan guarantees from the Community Opportunity Funds program to conform with the provisions of the Credit Reform Act of 1990. Annual changes that result from differing estimates of spendout rates for emergency appropriations put CBO's estimates between $2 million below and $4 million above OMB's annual estimates, but they sum to zero over the 1995-1998 period.

Emergency Funding Made Available Since OMB's Preview Report

The discretionary spending limits are also adjusted to reflect emergency appropriations made available since OMB's preview report. The largest adjustment is for the $3.5 billion in 1995 emergency budget authority provided in the recently enacted supplemental appropriations and rescissions act (P.L. 104-19) for disaster assistance and antiterrorism activities (including recovery from the Oklahoma City bombing). Additional 1995 budget authority of $2.5 billion was provided in the Emergency Supplemental Appropriations and Rescissions for the Department of Defense to Preserve and Enhance Military Readiness Act of 1995 (P.L. 104-6). The President's release of contingent emergency appropriations--largely relating to recovery from natural disasters--adds another $542 million in 1995 budget authority to the totals in OMB's preview report. Those appropriations raise the outlay limits by $1.6 billion in 1995 and 1996, $2.2 billion in 1997, and $2.1 billion in 1998.

Required Revision to Reflect Reduction in Nonemergency Spending

Section 2003 of the supplemental appropriations and rescissions package (P.L. 104-19) required downward adjustments to the discretionary spending limits equal to the total effect of the legislation on nonemergency budget authority and outlays. CBO estimates that the discretionary nonemergency provisions reduced 1995 budget authority by $15.3 billion, with minor effects on budget authority in future years. The resulting outlay reductions are $599 million in 1995, $3.2 billion in 1996, $2.7 billion in 1997, and $2.2 billion in 1998. As required, CBO has adjusted the caps by those amounts.

Pay-As-You-Go Sequestration Report

If legislated changes in direct spending programs or governmental receipts enacted since the Budget Enforcement Act increase the combined current and budget year deficits, a pay-as-you-go sequestration is triggered at the end of the Congressional session, and nonexempt mandatory programs are cut enough to eliminate the increase. The pay-as-you-go provisions of the BEA applied through fiscal year 1995, and OBRA-93 extended them through 1998.

The Budget Enforcement Act requires both CBO and OMB to estimate the net change in the deficit resulting from direct spending or receipt legislation. As is the case with the discretionary spending limits, however, OMB's estimates are controlling in determining whether a sequestration is required. CBO therefore adopts OMB's estimates of changes in the deficit at the end of the previous session of Congress as the starting point for this report.

CBO's estimates of changes in the deficit for 1995 through 1998 resulting from direct spending or receipt legislation enacted since the Budget Enforcement Act are shown in Table C-2. Those estimates include OMB's estimates of changes in the deficit resulting from legislation enacted through the end of the 103rd Congress but exclude changes in the deficit for 1996 through 1998 resulting from legislation enacted before OBRA-93 (the pay-as-you-go procedures did not apply to those years until OBRA-93 was enacted). Deficit reduction contained in OBRA-93 is also excluded, as required by law.

The only significant change to the pay-as-you-go totals thus far in the 104th Congress results from the Self-Employed Health Insurance Act of 1995 (P.L. 104-7). That legislation, which affects receipts and

outlays, both extends and enriches a deduction available to self-employed individuals for the cost of health insurance and denies the earned income tax credit to otherwise-eligible individuals whose annual investment income exceeds $2,350. The changes in direct spending and revenues attributable to the act, added to the combined net deficit reduction of $2.2 billion for 1995 and 1996 that OMB estimated in its preview report, yield a net decrease in the combined 1995 and 1996 deficits of $1.8 billion. The only other legislation enacted in 1995 tallied under the pay-as-you-go procedures--the District of Columbia Emergency Highway Relief Act (P.L. 104-21)--reduces outlays in 1997 and 1998.

Table C-2.
Budgetary Effects of Direct Spending or Receipt Legislation Enacted Since the Budget Enforcement Act (By fiscal year, in millions of dollars)

Legislation	1995	1996	1997	1998
Total for OMB's February 1995 Preview Report[a]	-2,009	-148	-357	-9
Legislation Enacted Since OMB's Preview Report				
Self-Employed Health Insurance Act (P.L. 104-7)[b]	248	83	-67	-68
District of Columbia Emergency Highway Relief Act (P.L. 104-21)	0	0	-2	-2
Change in the Deficit Since the Budget Enforcement Act	-1,761	-65	-426	-79

SOURCE: Congressional Budget Office.

NOTES: OMB = Office of Management and Budget; P.L. = Public Law.

The following bills affected direct spending but did not increase or decrease the deficit by as much as $500,000 in any year through 1998: Congressional Accountability Act (P.L. 104-1); District of Columbia Financial Responsibility and Management Assistance Act (P.L. 104-8); Paperwork Reduction Act (P.L. 104-13); An Act to Permit Medicare Select Policies in All States (P.L. 104-18).

a. Section 254 of the Balanced Budget and Emergency Deficit Control Act of 1985, as amended by the Budget Enforcement Act of 1990, calls for a list of all bills enacted since the Budget Enforcement Act that are included in the pay-as-you-go calculation. Because the data in this table assume OMB's estimate of the total change in the deficit resulting from bills enacted through the end of the 103rd Congress, readers are referred to the list of those bills included in Table 6 of the *OMB Final Sequestration Report to the President and Congress for Fiscal Year 1995* (December 16, 1994) and in previous sequestration reports issued by OMB.

b. Includes reductions in receipts and outlays.

Appendix D

CBO Projections of National Health Expenditures Through 2005

The projected growth of the federal deficit under current law stems largely from the continued double-digit growth rates of Medicare (the large federal health insurance plan for the aged and disabled) and Medicaid (the joint federal/state insurance system for the poor). Until recently, Medicare and Medicaid mirrored private health insurance, and the rapid growth of those programs was symptomatic of the rapid growth of health spending in general. Recent changes in the structure of private health insurance, however, have led to a surge of competitive pricing and have significantly slowed the growth of private health spending. This appendix summarizes the Congressional Budget Office's (CBO's) latest projections of national health expenditures, highlighting the dramatic changes taking place in the health economy.

To some extent, changes spearheaded by the private sector will spill over to the Medicare and Medicaid programs. But there are some limitations on how effectively the public programs can replicate the cost savings in the private sector. Under current law, the open-ended nature of fee-for-service Medicare and the formulas that Medicare uses to pay health maintenance organizations (HMOs) prevent the program from taking full advantage of the changes taking place in the private sector. The trend in Medicaid outlays is also extremely uncertain. Medicaid's payment rates are generally below the rates paid by Medicare and private insurers; many states are shifting to managed care for poor families; and managed care for the disabled and those in nursing homes is largely untried. Moreover, some of the states' recent efforts also include expansions of coverage.

Budget plans the Congress is considering would reduce the growth of Medicare and federal contributions to Medicaid. If implemented, they would also reduce national health spending. The amount would depend on the methods that the Congress chose to achieve its budget targets.

Changes in the Health Economy

In recent decades, U.S. health spending has grown very rapidly, mainly because consumers of health care have had little incentive to economize on health spending and because providers of health services have focused on diagnosis and treatment, not on cost. People often delegate decisions about health treatments to health providers, primarily their doctors and the hospitals in which their doctors practice. Until recently, private insurance companies paid the reasonable and customary charges of those providers, and government insurance programs generally paid providers based on their costs. Those insurance arrangements gave providers an incentive to develop new, high-cost procedures--which had no customary charge and for which high charges seemed reasonable--and allowed the health sector to expand with little restraint. The ultimate costs of those expensive new services were reflected in government budgets and, for workers with employment-based health insurance, in employees' noncash compensation.

Although the rapid growth of health spending contributed to rising taxes or government deficits,

slow growth of cash pay, and rising numbers of people without health insurance, the connection was not always direct or apparent. People did not benefit individually by taking actions to slow the growth of their health spending.

All of that is beginning to change. After several years of extremely rapid growth, spending for health care--especially by private payers--has slowed. Unlike traditional insurers, managed care plans actively purchase health care instead of passively paying the bills. These new plans, led by HMOs, have the potential to control the growth of health spending on behalf of their enrollees. Since the mid-1980s, the market share of managed care plans has increased dramatically. Since about 1990, the market dominance of traditional fee-for-service health insurance has shrunk, and the emergent managed care plans--taking advantage of the excess capacity that fee-for-service insurance had encouraged--have helped touch off a hotly competitive response to the problems of the health economy.

The development of price competition among health plans and providers in the 1990s probably reflects the confluence of many interrelated factors. The recession of 1990-1991, like the previous recession of 1981-1982, highlighted the need for efforts to control health payments. During both downturns, the growth in health spending remained strong while government tax revenues and private incomes--the funding resources for health care--were under economic pressure.

By the early 1990s, enrollment in managed care plans had grown to levels that providers of health care services found increasingly difficult to ignore, improving the ability of plans to contract with hospitals and doctors at favorable terms. Those price discounts, combined with the potential that managed care plans have to reduce the use of health services below what would be expected under fee-for-service reimbursement, have allowed managed care plans to achieve significant cost advantages over traditional insurance plans.

As some businesses have used managed care to help slow the premium increases faced by their workers, other businesses have felt pressure to keep up. If a company finds that its employees are amenable to managed care, it can use the savings to pay its workers more, leaving businesses that do not find ways to slow premium growth at a competitive disadvantage in attracting and retaining a skilled workforce.

Finally, plans found that they could establish and expand the looser independent practice association (IPA) form of health maintenance organization much more rapidly than group- or staff-model HMOs. Many traditional insurers formed preferred provider organizations (PPOs), which offer HMO-style benefits (low fixed copayments) if the enrollee uses the PPO network. These new plans found a climate fertile for cost control, and their market share expanded rapidly.

Managed care plans and the price competition they have spawned are helping to offset (rather than eliminate) some of the root problems that have weakened incentives for cost containment in the health sector. Enrollees of managed care plans still delegate much decisionmaking to the plans' health providers and still have no financial incentive, as patients, to economize on services they request. But the incentives for providers under managed care plans can be dramatically different from the incentives they faced under traditional insurance. Fee-for-service providers had an economic incentive to maximize the number of billable services they performed. Many managed care providers, however, receive capitated payments, a fixed amount per patient regardless of the number of services provided. Providers receiving capitation payments have an incentive to maximize the number of patients in their practice. As more payments are made through capitation, the incentive for excessive volume of services switches to an incentive to provide less care. Managed care providers can increase their income by keeping their patients healthy and avoiding unnecessary services (a desirable social outcome) or by withholding appropriate care (an undesirable result).

CBO Projections of Health Spending

In 1965, national health spending constituted less than 6 percent of U.S. gross domestic product (GDP).

In 1995, health spending will total an estimated $1 trillion, or 14 percent of GDP. Assuming that federal laws do not change, CBO projects that national health expenditures will grow to 16 percent of GDP in 2000 and to 18 percent in 2005 (see Table D-1).

CBO estimates that spending for health care grew about 6 percent in 1994, the slowest rate in 30 years, and will grow about 7 percent in 1995. Private health insurance premiums show correspondingly slow rates of growth: 5 percent in 1994 and almost 6 percent in

Table D-1.
National Health Expenditures for Selected Calendar Years, by Source of Funds

Source of Funds	Actual					Projected		
	1965	1980	1985	1990	1993	1995	2000	2005
	In Billions of Dollars							
Private	31	146	259	410	496	552	770	1,051
Public								
Federal	5	72	123	196	281	334	528	821
State and local	5	33	52	91	107	121	174	247
Total	42	251	434	697	884	1,008	1,472	2,119
	As a Percentage of Total Expenditures							
Private	75.3	58.1	59.7	58.9	56.1	54.8	52.3	49.6
Public								
Federal	11.6	28.7	28.4	28.1	31.7	33.2	35.8	38.8
State and local	13.2	13.3	11.9	13.0	12.1	12.0	11.8	11.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	Average Annual Growth Rate from Previous Year Shown (Percent)							
Private	*	10.8	12.2	9.6	6.6	5.5	6.9	6.4
Public								
Federal	*	19.7	11.4	9.7	12.7	9.1	9.6	9.3
State and local	*	12.8	9.2	11.9	5.7	6.3	7.5	7.2
National Health Expenditures	*	12.7	11.6	9.9	8.3	6.8	7.9	7.6
Memorandum:								
Gross Domestic Product (Billions of dollars)[a]	703	2,708	4,039	5,546	6,343	7,127	9,128	11,772
Average Annual Growth of Gross Domestic Product from Previous Year Shown (Percent)	*	9.4	8.3	6.5	4.6	6.0	5.1	5.2
National Health Expenditures as a Percentage of Gross Domestic Product	5.9	9.3	10.8	12.6	13.9	14.1	16.1	18.0

SOURCE: Congressional Budget Office.

NOTE: * = not applicable.

a. Economic assumptions reflect the Congressional Budget Office's forecast of January 1995.

1995. The growth of private health insurance premiums will average about 7 percent a year between 1995 and 2005. Federal spending for Medicare and Medicaid is projected to increase by 10 percent a year under current law.

Government spending on health care has risen from 40 percent of total health spending in 1985 to an estimated 45 percent in 1995 and will account for over 50 percent of total health spending by 2005. Increases in federal outlays account for all of the projected growth in the public share of health spending under current law. Although state government initiatives--especially for Medicaid--are inherently unpredictable, CBO assumes that the share of health spending paid by state and local governments will remain steady at about 12 percent of the total.

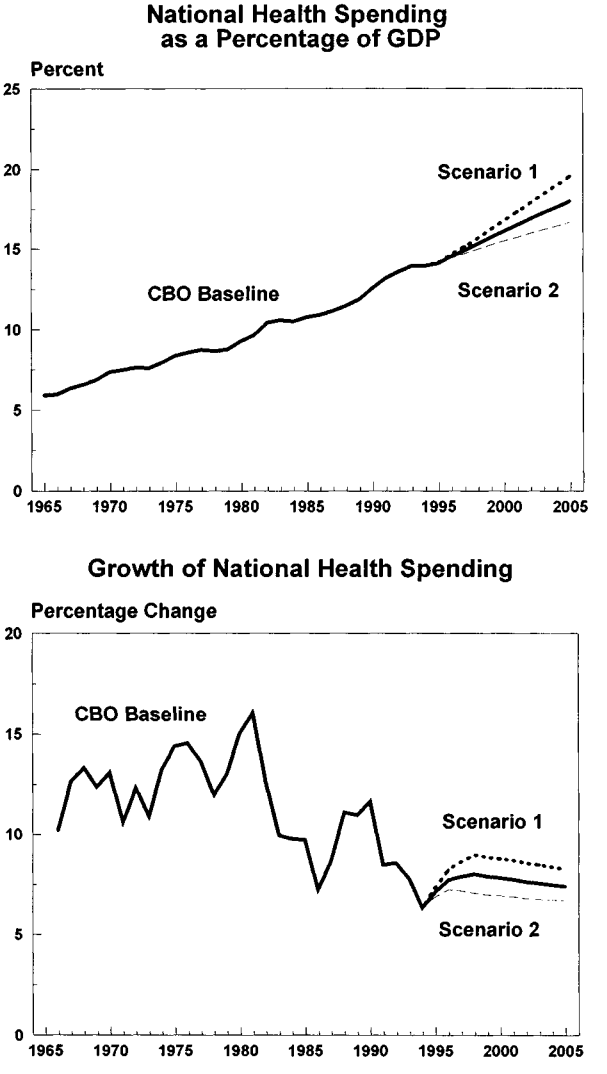
Alternative Scenarios for Growth of Private Health Spending

Whether the recent trends toward price competition will continue to moderate the growth of health spending is highly uncertain. Previous slowdowns in the growth of health spending--in the late 1970s and mid-1980s, for example--proved temporary. Health economists and policy experts are divided about whether the current moderate growth of health premiums will persist. To illustrate some possibilities, CBO has computed the path of health spending under two alternative scenarios: one in which growth in health spending accelerates and one in which the slowdown continues.

Scenario 1: Rapid Growth Returns

The possibility that the current slowdown in private health spending could turn out to be more of a short-term aberration than a long-term trend has been raised by several analysts.[1] To illustrate this possibility, Scenario 1 assumes that the current slowdown in private-sector health spending is temporary and that the growth of private insurance premiums and out-of-pocket payments reverts to historical trends. Specifically, the growth of private health spending gradually rises to 2 percentage points a year above the baseline. National health expenditures under this

Figure D-1.
National Health Expenditures Under Alternative Scenarios for Growth in Private Health Spending (By calendar year)



SOURCE: Congressional Budget Office.

NOTE: Scenario 1 assumes that growth in private health spending is 2 percentage points higher than in the baseline. Scenario 2 assumes that growth is 2 percentage points lower.

1. See, for example, Henry Aaron, "Thinking Straight about Medical Costs," and Katharine Levit and others, "National Health Spending Trends, 1960-1993," both in *Health Affairs* (Winter 1994).

scenario would account for 19.5 percent of the economy in 2005, closer to CBO's previous projections.[2] Health spending would grow by about 8.5 percent a year in the projection period compared with about 7.7 percent a year in the baseline (see Figure D-1).

Scenario 2: The Slowdown Continues

Although some health economists doubt that the slowdown in private spending will continue, many observers from private health plans believe that it can go on indefinitely. For example, when CBO convened a panel of outside experts to discuss these projections in December 1994, representatives from large health plans generally believed that continued restraint was likely. Under Scenario 2, the current moderate growth of private insurance premiums and out-of-pocket spending persists throughout the projection period. Specifically, their growth gradually falls to 2 percentage points a year below the baseline projection. Under Scenario 2, health spending would account for 16.7 percent of the economy in 2005 compared with CBO's baseline projection of 18.0 percent. Total spending under this alternative would grow by about 6.9 percent each year compared with average annual growth of 7.7 percent in the baseline.

Impact of the Budget Resolution

The Congress has resolved to reduce the average rate of growth of Medicare spending to 6.3 percent a year between fiscal years 1995 and 2002, down from the 10.3 percent annual rate expected under current law. The growth of federal contributions for Medicaid would slow from 10.4 percent a year under current law to about 4.8 percent annually under the budget resolution. Slower growth of Medicare and Medicaid would in turn reduce the growth of national health spending. Depending on exactly how the growth of those programs is slowed, the outlook for national health spending could be substantially changed.

The budget resolution calls for Medicare outlays (net of premiums collected from beneficiaries) to grow by 6.3 percent. Raising premiums for Supplementary Medical Insurance (SMI, or Part B of Medicare) would have no effect on national health spending if everyone continued to participate. Increasing beneficiaries' cost sharing by raising deductibles or coinsurance would slightly reduce national health spending. The 15 percent of beneficiaries without supplementary coverage that pays for cost sharing (either through Medicaid or a private medigap plan) would use fewer health services if they had to bear a greater share of coinsurance. Their out-of-pocket payments would increase, but not by as much as government payments would decline. Beneficiaries with supplemental insurance coverage would pay higher medigap premiums if cost sharing was increased, and some might therefore drop their medigap coverage. But for most beneficiaries, increased private medigap payments would simply offset the decreased federal payments.

Cutting Medicare reimbursement rates to providers would tend to reduce national health spending, although health care providers would be likely to partly offset a reduction in rates by increasing the volume of services performed. Also, some researchers have theorized that past cuts in Medicare reimbursement have spurred health providers to increase their charges to private patients and their insurers, further offsetting the government's cuts. Because most private health insurers now purchase care directly from providers, however, often under capitation arrangements, there may be less room for such cost shifting today. Capitated providers could not simply bill more and extract additional payments to offset the Medicare cuts. Rate reductions in Medicare might even make private payers seek lower rates as well.

The Congress has proposed to reduce the growth of Medicaid spending to 4.8 percent a year in the 1996-2002 period. The impact of that reduction on national health spending would depend on how states reacted and on whether the states were subject to maintenance-of-effort or other matching requirements. If the growth in states' spending continued at currently projected levels, then national spending would fall roughly in line with the federal reductions.

2. CBO's health projections were introduced in *Projections of National Health Expenditures*, CBO Study (October 1992) and updated in *Projections of National Health Expenditures: 1993 Update*, CBO Paper (October 1993).

If states cut the growth of their Medicaid spending in line with the federal outlays, then national health spending would fall by more than the federal cuts would imply. If states instead increased their Medicaid outlays, then the impact on national health spending would be less than the federal cuts alone.

Appendix E

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

Mark Booth	Corporate income taxes, Federal Reserve System earnings, excise taxes
Drew McMorrow	Excise taxes
Peter Ricoy	Social insurance contributions, estate and gift taxes
Melissa Sampson	Customs duties, miscellaneous receipts
David Weiner	Individual income taxes
Stephanie Weiner	Customs duties, miscellaneous receipts

Spending Projections

Defense, International Affairs, and Veterans' Affairs

Elizabeth Chambers	Military retirement, atomic energy defense, military health care
Kent Christensen	Defense
Sunita D'Monte	International affairs
Victoria Fraider	Veterans' education and housing, defense (weapons)
Michael Groarke	Veterans' housing and medical care
Raymond Hall	Defense (weapons)
Mary Helen Petrus	Veterans' compensation, pensions, and medical care
Amy Plapp	Defense (personnel)
Jeannette Van Winkle	Defense (weapons)
JoAnn Vines	Defense (weapons)
Joseph Whitehill	International affairs

Human Resources

Wayne Boyington	Civil Service Retirement, Social Security, Pension Benefit Guarantee Corporation
Sheila Dacey	Aid to Families with Dependent Children, child support enforcement
Scott Harrison	Medicare
Christie Hawley	Unemployment insurance, training programs
Jean Hearne	Medicaid
Anne Hunt	Public Health Service
Deborah Kalcevic	Education
Justin Latus	Education, foster care, child care
Lisa Layman	Medicare
Jeffrey Lemieux	Federal employee health benefits, national health expenditures
Dorothy Rosenbaum	Social services, food stamps, child nutrition
Robin Rudowitz	Medicaid
Kathy Ruffing	Supplemental Security Income, Social Security

Natural and Physical Resources

Gary Brown	Water resources, other natural resources
Kim Cawley	Energy, pollution control and abatement
Rachel Forward	Commerce
Mark Grabowicz	Justice, Postal Service
Kathleen Gramp	Energy, science and space
Victoria Heid	Conservation and land management, Outer Continental Shelf receipts
David Hull	Agriculture
Craig Jagger	Agriculture
Mary Maginniss	Deposit insurance, legislative branch
Eileen Manfredi	Agriculture
Susanne Mehlman	Justice, Federal Housing Administration
David Moore	Spectrum auction receipts
John Patterson	Transportation
Deborah Reis	Recreation, water transportation
John Righter	General government
Rachel Robertson	Community and regional development, disaster assistance
Judith Ruud	Deposit insurance
John Webb	Commerce

Other

Janet Airis	Appropriation bills
Edward Blau	Authorization bills
Jodi Capps	Appropriation bills
Karin Carr	Budget projections, historical budget data
Betty Embrey	Appropriation bills
Kenneth Farris	Computer support
Vernon Hammett	Computer support
Sandra Hoffman	Computer support
Jeffrey Holland	Net interest on the public debt
Deborah Keefe	Computer support

Daniel Kowalski	Credit programs, other interest
Catherine Mallison	Appropriation bills
Robert Sempsey	Appropriation bills
Michael Simpson	National income and product accounts
Susan Strandberg	Budget projections, civilian agency pay

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